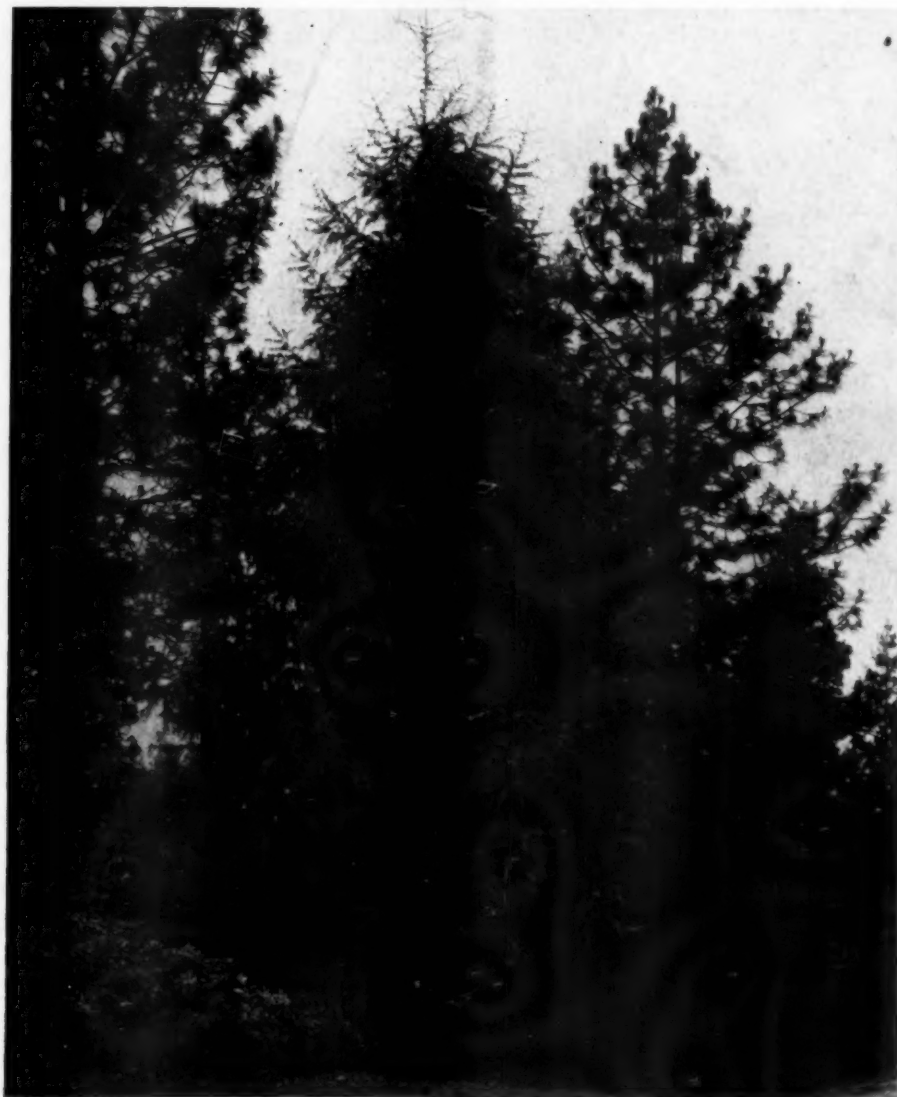


# AMERICAN NURSERYMAN

*The Nurseryman's Forte: To Make America More Beautiful and Fruitful*

**JANUARY 1, 1938**



**Larix Decidua**

**Test Ground Cover Plants  
Profits in Prophecy  
To Form Chapters at Winter Meetings  
Convention Programs**

# AMERICAN NURSERYMAN

Chief Exponent of the Nursery Trade

F. R. KILNER, Editor

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## WAGE-HOUR BILL DEAD.

By recommitting to committee the wages and hours bill, the House of Representatives, December 17, killed the measure so far as the current session is concerned. Unless the administration at Washington is able to revive the measure in the regular session, that piece of legislation is disposed of.

Opposition to the proposed act came from so many quarters that it seemed at last to have no friends except the New Deal officials who proposed it. Their influence is seen in the close vote of 216 to 198 by which the bill was recommitted.

## THE SKILL OF A PROPHET.

The gift of drawing from other fields those lessons and examples which may make a nursery enterprise more successful is not an ordinary blessing. The belief that "our business is different" holds too many organization heads in circumscribed bounds. So the many readers who found enlightenment in the address of Hubert S. Nelson before the Michigan association, published in this magazine October 1 under the title, "Facts and Figures That Make Up Prices," will welcome the opportunity of reading his remarks before the Minnesota meeting, published in this issue under the title, "Profits in Prophecy."

The quotation in the opening portion of that address, "that the success or failure of a man engaged in business depends more upon his skill as

## The Mirror of the Trade

a prophet than upon his ability as a producer," is given point and application to the nursery business by the experiences of the writer's own company. A good many other nurserymen have had similar experiences within the past decade. Instead of excusing themselves with the old phrase that "hindsight is better than foresight," they are seeking ways to develop the latter. Some suggestions on the way to develop skill as a prophet are contained in the article. The man who can think has always been recognized as worth more than a manual laborer. And the man who can think ahead is worth even more yet.

## LARIX DECIDUA.

Because of its deciduous habit and extreme hardness, the European larch, *Larix decidua*, illustrated on the front cover, has a wider adaptability than many of the evergreen conifers. Many nurserymen doubtless know this tree better as *L. europaea*, by which botanical name it was long known. Regardless, it is a splendid tree for parks and parkways and as a specimen in large lawn areas. Clumps of three or five in a long sweep of lawn or meadow present an effective picture, forming stately, though graceful, conical spires.

After the clusters of light green needles develop in spring, the tree has a refined softness rarely produced by conifers, and this effect is furthered by its graceful pendulous branches. Studded with tiny cones, the bare twiggy branches are equally interesting in winter.

The larches are not particular as to soil, growing in almost any kind, including clay and limestone, but for a low, damp or even swampy situation, the American larch, *L. laricina* (*americana*) should be selected in preference to the European. The former will tolerate an upland location, however. Since the larches grow rapidly in most situations, they should be planted where they have plenty of room to develop properly. The American larch has a maximum height of about sixty feet, whereas the European may eventually stretch up to 100.

Without cones it is difficult for the average person to differentiate the European from the American larch, but since cones are almost always present on the trees, it is a simple matter, the cones of the former being composed of from thirty to fifty scales, whereas there are only twelve to fifteen scales in the cones of the American larch. Propagation is readily accomplished by spring sowing of the seeds, which should be held dry over winter.

## SEE END OF RECESSION.

Government economists whose business it is to forecast the business outlook and estimate future tax collections have reached a consensus that the current industrial recession will end as 1938 opens and an upward trend will begin shortly. The same group of economists foresaw the current recession as long ago as last spring; so their judgment may be considered of some weight.

In expressing the opinion that the low point has been reached, these research economists in the government service do not take the position that "prosperity is just around the corner." They believe it will require several months for the next upswing to gather momentum.

Assimilation of the overstocked inventories that piled up last spring and summer is the factor most generally considered as pointing the way to improved conditions. The enthusiasm that led to overbuying last spring was succeeded by an equally marked curtailment of orders in autumn. Already the pendulum has reached the limit of that swing, and buying is being resumed in some lines and will be soon in others.

Should this forecast prove correct—and a few weeks should test it—the turn will come in time to give nurserymen a good spring season.

VIBURNUMS are the subject of an informative article by Donald Wyman in the December 10 bulletin of popular information issued by the Arnold Arboretum, Jamaica Plain, Mass., describing them in reference to their flowers, fruits and landscape uses.

# AMERICAN NURSERYMAN

[Registered U. S. Patent Office]

**The Chief Exponent of the American Nursery Trade**

*The Nurseryman's Forte:  
To Make America More Beautiful and Fruitful*

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No. 1

## Test Ground Cover Plants

*Results of Three Years' Trials of Less Common Types Against Check Tests of Older Varieties of Ground Covers at Ohio State University—By L. C. Chadwick*

Realizing the need for more accurate information on the adaptability of many of the uncommon ground cover plants under midwestern environmental conditions, tests were started in the spring of 1935 by the horticultural department at Ohio State University. Included in the test were most of the old stand-bys to act as checks against the others. While such ground cover plants as English ivy, myrtle and the evergreen wintercreepers are satisfactory under a wide range of conditions, with a few precautions, landscape gardeners are demanding something new to satisfy the demands of their clients. It was hoped that these tests would increase the list of desirable types.

The trials have not progressed to the stage where definite statements can be made regarding the adaptability of many of the plants for general use, but their reactions so far are interesting.

Since the plantings were made, we have had one of the coldest winters on record in Ohio, which was followed by an exceedingly dry summer. It is doubtful if ground cover plants will ever be put to a more severe test.

A succession of plots, 6x10 feet, were laid out in a silty clay loam soil. Plots 2, 3, 9, 10, 11, 12, 17, 18, 19, 20, 22, 25, 28, 30 and 31 sloped gradually to the west, while the others were practically level. Plots other than 4, 5, 6, 7, 8, 11, 13, 14, 15, 23 and 24 were under small trees of English elm, which gave some shade during the forenoon. A quantity of peat moss was worked into

the soil of each plot and, in addition, those plots containing plants requiring an acid soil have had sulphur and aluminum sulphate incorporated with the soil. All the plants were mulched with peat moss the first year. Since then the mulch has been limited to those requiring an acid soil.

The plants were spaced uniformly in the plots, their closeness and number depending upon the nature of growth of the plant. Some exceptions to this will be noted in the discussions of the various types.

It will be unnecessary to discuss at length many of these types of ground covers, since they are well known to nurserymen and landscape gardeners. In such cases only a few general notes on their reaction will be given.

*Ajuga reptans*, carpet bugle: Plants spread rapidly and gave a complete cover by the end of the first year. The second season a blight of undetermined origin killed a good many plants. The blue flowers are quite attractive. It should be an effective ground cover for limited areas.

*Ampelopsis tricuspidata* Lowii, geranium creeper: Growth of this small-leaved Boston ivy was quite effective the second summer, making a low cover. The light green leaves are especially attractive when they are young because of the pronounced purplish color. Plants will have to be set close together if a complete coverage is made the first year. Its deciduous nature will limit its use.

*Arctostaphylos Uva-ursi*, bearberry: Growth of this low-growing, creeping shrub has been compara-

tively slow, too slow to make a satisfactory ground cover other than for limited areas. It is quite possible that if plants were set comparatively close, enough to shade the ground the first season, growth would be considerably better. Plants in our evergreen garden have formed a dense evergreen carpet in about five years. This plant apparently prefers a sandy, well drained, acid soil.

*Evonymus obovatus*, running evonymus: This deciduous, procumbent shrub has not been satisfactory in our tests, but this has been due to unfavorable conditions. Native plants in this vicinity, growing in shade, make a satisfactory underplanting. It is loose, but should be effective planted on banks when given at least partial shade. The fruits are especially attractive during the fall months.

*Evonymus radicans*, wintercreeper: An old stand-by and still an excellent evergreen ground cover. Does well in either sun or shade and under a wide range of soil conditions. The plants grow upright enough to make a planting fifteen to eighteen inches high.

*Evonymus radicans coloratus*: This is a form of the variety *acutus*, with large, thin leaves, which color bright red in the autumn. It has less tendency to climb and forms a lower mass in a shorter time than the species. If the fall color is not an objection, it will be more satisfactory than most of the wintercreepers for covering large areas because of its rapid growth.

*Evonymus radicans minimus*, baby wintercreeper: This small-leaved va-

riety will make a fine ground cover for limited areas. The plants grow close to the ground and will have to be planted relatively close to be effective the first year. Its best use is possibly as a rock garden plant or for an underplanting in the foundation planting.

*Evonymus radicans reticulatus*, white-vein wintercreeper: This variety, with comparatively small leaves bearing white veins, has not been very satisfactory as a ground cover plant in our tests because of its tendency to grow up on itself. This gives the planting an uneven and "bunched" effect. Probably trimming and training when the plants are young would overcome much of this habit.

*Galax aphylla*: *Galax* has not been satisfactory because of the tendency of the leaves to burn, even in partial shade, during the summer months, and the winter injury ensuing. The plants flowered well this past year and were effective from this standpoint. I should like to try this plant in full shade, in protected situations. The heavy peat mulch seems favorable for the production of many new leaves each spring.

*Gaultheria procumbens*, wintergreen: This low spreading plant has developed a cover slowly, but has stood the adverse climatic conditions well. In our tests, if the plants had been spaced closer, six to eight inches apart, an excellent cover would have resulted by this time. Our plants have not yet fruited, but the small scarlet fruits should add to its attractiveness. Based on our tests so far, I feel safe in recommending the wintergreen for limited areas, in partial shade and an acid soil.

*Hedera Helix*, English ivy: The English ivy has proved itself a reliable ground cover in our tests. The partial shade provided seems to have been satisfactory. The foliage bronzes somewhat in the winter, and for that reason I should prefer to give it a little more shade. Little winter injury occurred during the cold winter of 1935-36. Its rapid growth is in its favor.

*Hedera Helix baltica*, Baltic ivy: This variety has shown some interesting characteristics during the test. It is slower-growing than the species and stays much closer to the ground.

The leaves are smaller, and the veins are often quite white. Its supposedly greater hardiness has not been adequately checked in our tests. Its lower habit of growth and smaller leaves, which give a compact mass, should be commendable characteristics.

*Hypericum Buckleyi*, mountain St. John's-wort: This low shrub has not been satisfactory in our tests. It has suffered severely during the summer, many of the leaves burning. Plants have made poor growth and spread but little. Possibly with more shade they would do better.

*Lonicera Henryi*, Henry honeysuckle: The Henry honeysuckle has made a vigorous growth and proved to be especially useful as a rapid bank cover. The plant is similar to the Hall honeysuckle in general appearance and usefulness. It can be distinguished from it by its stiff hairy stems, more pronounced hairy leaf margin and yellowish red flowers.

*Lonicera japonica Halliana*, Hall honeysuckle: This plant and the preceding species are perhaps our best bank covers for mass planting. They are especially adapted to highway and railway bank planting and similar situations.

*Mahonia repens*, creeping hollygrape: While this stoloniferous shrub does not spread so rapidly as many of the other evergreen ground covers, it has developed rapidly enough nearly to cover the ground in three years from rather wide spacing. The foliage resembles that of the more popular Oregon hollygrape except that it is dull, bluish or bronzy green. As a variation to our general line of ground cover plants, *Mahonia repens* has possibilities.

*Mitchella repens*, partridge berry: This creeper will prove quite satisfactory as a ground cover plant for limited areas if given proper soil conditions. The soil should contain plenty of organic matter and be acid in reaction. The small red fruits are attractive from fall to spring. To develop a good mass effect, close planting is necessary.

*Ophiopogon japonicum*, Japanese snakebeard: This plot was set this past spring and observations have not been extensive enough yet to warrant a statement.

*Pachistima Canbyi*, Canby pachistima: A number of fine plantings of this plant have been seen along the east coast. Our tests have shown

only fair results in our ground cover plot. It has proved to be hardy, and its foliage gives a fine appearance, but it has spread slowly. Consequently it would appear that close planting would be essential if a good cover were to result. Plants growing back of a rock wall have developed much more rapidly. In both cases the soil has been slightly acid and includes liberal quantities of peat moss. It is quite possible the better drainage afforded the plants back of the rock wall makes the difference. I believe the Canby pachistima will be used in the midwest in favorable locations.

*Pachysandra terminalis*, Japanese spurge: This common ground cover has proved very satisfactory in our partially shaded plots. Scale, which has been troublesome in some sections, has not bothered us in our test plots.

*Phlox subulata*, moss phlox: This plant developed a complete cover quickly, and the flowers have been attractive in the spring. I believe the plant can be used more abundantly as a ground cover than it has in the past.

*Potentilla tridentata*, wineleaf cinquefoil: In its native habitats of Maine and northern Michigan this low plant spreads rapidly and makes an attractive cover either in sunny or partially shady situations. In our tests the plants have spread slowly. Close planting to shade the soil from the start would seem essential from our tests. A well drained, acid soil containing ample humus will aid growth.

*Rosa Max Graf*: This hybrid between *Rosa rugosa* and *Rosa Wichuraiana* makes a good coarse bank cover and can be used in similar situations as the honeysuckles. It grows rapidly and is attractive in flower.

*Rosa Wichuraiana*: This rose is much more refined with its small leaves and close-growing stems and is well adapted for covering banks and rocky slopes. The white, fragrant flowers add to its attractiveness.

*Sedum spurium*, running stonecrop: This sedum spreads rapidly and gives a complete cover quickly. I believe it can be used more abundantly as a general ground cover than it has been in the past even though its foliage and habit of growth are

[Continued on page 18.]

# Profits in Prophecy

*More Experiences in Nursery Management, Sales Promotion and Price Making to Gain a Profit, Told Minnesota Nurserymen by Hubert S. Nelson, Vice-president of Swain Nelson & Sons Co.*

Can you all see this? It is a \$10 bill. In 1929 this bill looked just the same as it does now. It was no different in appearance in 1932, and it was called a \$10 bill then just as it is now. The appearance has not changed since 1929, but you all know that its value or buying power has fluctuated violently. In fact, the value of this bit of paper is changing every day, and this change is inevitable. The buying power of each of us is affected, very definitely, by these fluctuations, but we are unable to do anything about its ups and downs because they are regulated by the well known but little understood law of supply and demand. While we can't change the law of supply and demand, it is possible for us to learn how this law acts, and then learn to gear our business so as to be ready to join the rising trend and side-step the declines. As a matter of fact, we just cannot afford to ignore the fluctuations of business if we expect to operate successfully.

Back in 1933, C. E. Knoeppel, a prominent eastern industrial engineer, made a statement on the subject, which I think is potent enough to be given serious consideration. He said:

"A long professional experience has convinced me, without shadow of a doubt:

"1. That the success or failure of a man engaged in business depends more upon his skill as a prophet than upon his ability as a producer.

"2. That external conditions exert a more potent influence on profit-making than do internal ones.

"3. That gains coming from the ability to foresee future trends and to provide against them far exceed the margin of profit which competition permits.

"4. That successful men do little unintelligent guessing about vital business matters."

The truth of this statement is well illustrated by a few rather costly mistakes which our company made back in 1928 when, as you will remember, there was a "new era" which was depression-proof because the bankers and politicians "knew all

the answers." In that year we bought eighty-six acres adjoining our nursery. We really did not need the additional land, but the owners were bankrupt and we were able to pick it up at a ridiculously low price. That is to say, the price seemed ridiculously low at that time. Four short years later we could have acquired the land at about one-fourth of the price we paid—or maybe even less. That wasn't all. As long as we had the land, we figured that we might as well put it to use. Up to that time, we had never been able to catch up with the growing demand for American elms; so we bought many thousands of small elms at a price of \$1.25 each and planted them. Four or five short years later, many nurserymen would have jumped at the opportunity of selling us these trees at 40 cents apiece, or less. Figure it out for yourself. On just these two transactions—had we expected what was coming, had we been better prophets—we could have saved close to \$100,000, and that saving would have been profit. You all know that you have to sell a lot of nursery stock and do a great deal of landscape work to make a profit of \$100,000. Of course, there are a great many other ways in which we could have retrenched, had we foreseen the future a little better. We should not have given credit to so many real estate subdividers who were so-called "shoe-string" operators. We should have tightened our regular credit policy. We should have made a special drive to collect outstanding accounts, and put on a special sales drive to push the items of nursery stock of which we had a surplus. In other words, we could have pulled in our horns and been able to ride out the storm in comparative ease.

Last August I had the opportunity of giving a talk at the Michigan nurserymen's convention on the subject of selling and high prices. Various points were illustrated by using experiences of our company, all of which were flattering and would lead anyone to think that our company did everything right. In this talk, I am going to the other

extreme, and will show what not to do under certain circumstances and illustrate by mistakes which we have made in the past.

With external conditions exerting such a potent influence on our profits during the past eight years, it is only natural that we should try to see if there were some way in which we could improve our ability to foresee future trends and provide against them. We have found very definitely that there is no royal road whereby one may become a "sure-fire" prophet, but we do feel that the studies that we have made for the past number of years, on economics, inflation, the stock market fluctuation and business cycles, have helped to some extent. For several years we have expected a business slump such as we now have. However, our timing was bad, because we expected it to start sometime next year. In April of this year we got the first hint of trouble and tightened our credit policy, and then September 8 we had a meeting to determine how best to meet the business recession, which even at that time we expected to extend to serious proportions. We were right at that time, but made another bad guess in that we thought, because of the large number of new homes being built, the slump in nursery and landscape business would not be so severe even though general business was having a bad slump. The last few months have made us change our minds. In order to complete the picture, I shall hazard a prediction which, by the way, is subject to change without notice. We expect the general business slump to last for quite a while longer—at least into late spring. It is quite possible that the recovery will not come in time to make the next fall season an outstanding success. On the other hand, we do consider this a so-called minor depression, which will not be anything like so severe as the 1929 collapse. From the low point of this slump, business will start a rise which will reach boom proportions by 1940 and will culminate in a bad depression starting sometime in 1941 or early in 1942. We have from now

until the start of the next depression in which to gear our business to the law of supply and demand, and be ready to take advantage of the low prices in the future, instead of being on the other side of the fence.

This prediction is not made in order to frighten anyone, nor to spread any unnecessary amount of gloom. It was made on the theory that it is best to make an unbiased appraisal of the future and then face the fact, however unpleasant, knowing that only in this way can we have any hope of coping with the situation. Back in September, with this picture in mind, we decided that it would be unwise to cut our staff to the bone, because we shall need all of the employees which we have, in order to handle the volume of business which we expect to get when this recession is over, and we are afraid that, if we let them go now, it will be difficult to replace them later. Therefore, we have decided to devote our money, time and effort to the development of a new and improved sales program, which, if successful, will soften the blow of the present slump and make it unnecessary to fire anyone.

Now, whether or not you agree with us as to what is ahead for business during the next twelve months, I urge you to overhaul your sales program, because even if we are "all wet" about when prosperity will come again, we do know definitely that we are in a depression, recession or slump—name it what you please—and we also know that increased sales will not hurt us even if general business starts on the road to recovery next month. There is another fundamental reason for going over your sales program now, and that is because all business, in the last analysis, is the distribution of goods and service to that body of people commonly known as the public or the consumer. Everything we do in business is for the final purpose of consumption. We grow trees, evergreens and shrubs for sale. We buy other materials so we can sell them later. All personnel work which we do is to help sales, as are all our financing and administrative efforts. In the past, altogether too much emphasis has been given to production. While this is true of all business, it is particularly true of our industry.

In the past, most of the money spent for brains has gone to buy producers' brains, and as a result, the technical side of the industry is way ahead of the distribution. We are out of balance, and that accounts for the large inventory surpluses which even now force prices down on P. W. A. bids to a point where 4-inch elms with a 4-foot ball are selling for \$8.25, and 5-inch elms with a 5-foot ball, for \$13. You can't make profits at these prices. In addition to this, while your fellow nurserymen are admittedly tough competition, radios, automobiles, air conditioning and so forth are your stiffest competition. It is up to us as an industry to do as good a job of merchandising as the manufacturers of these other products, if we expect to keep pace with the changing times. You, as a unit of the industry, are responsible for doing your share of this program. By doing a good job of merchandising for yourself, you will help the industry as a whole.

The first step in overhauling a sales program is to study the sales problem. What do we want to sell? To whom do we want to sell it? When do we want to sell it? What prices should we charge? A thorough study of these four questions is the same as a complete study of your whole business—from the price you pay your labor in the fields to your method of book-keeping. Everything you do bears some relation to the answers. Obviously to outline in detail such a plan would take several hours. Instead, we shall go over an outline which will hit some of the high spots. This type of outline is illustrated by the story of Johnny and his teacher. Johnny was having trouble with spelling, and after many hours of tutoring, the teacher finally said, "Maybe if you learned the meaning of the words first, you would be able to spell them." Johnny agreed to try it. The next day the teacher asked him to spell the word "straight." "S-t-r-a-i-g-h-t." "Splendid, Johnny. Now, can you tell me what the word means?" "Without ginger ale." So this outline will be without ginger ale.

Every individual company in our industry does business in a slightly different way from every other one, but, in general, the sales problems are the same. I believe we will cover the problems of most retailers and landscape companies if we talk about a

problem which is facing a company like ours, whose main business is landscape contracting, but which, in addition, has a relatively complete nursery. The first fact which a study of the problem brings to light is that, as an industry, we are far too dependent upon the ups and downs of business. The fact that for years we have been content to give up trying to sell as soon as the ground freezes in the winter and are satisfied to loaf until the first warm days of the spring is clear proof that as an industry we lack aggressiveness in merchandising. No one will deny that it is a great deal harder to sell landscape work in the winter than when the warm spring days make everyone wish to be outdoors, but the fact that it is harder is no excuse for not trying. This lack of an aggressive sales program makes it particularly bad during depression years. Other industries faced with similar problems have been able to lick them. For example, the coal industry sells a great deal of coal in the summer time when people are more interested in trying to keep cool than in thinking of furnace fires.

What do we want to sell? Broadly speaking, every nurseryman and landscape contractor wants to sell a landscape on some home owner's grounds. This even applies to the wholesaler indirectly, because unless landscapes, which involve nursery stock, are sold to home owners, there would be no need for wholesale nurseries. We want to sell what we have or can get, but mostly what we have. Now, the theoretical company mentioned above has a nursery full of brush. In this respect, it differs from most other manufacturers, because of the length of time necessary to grow stock from lining-out size to trees large enough to use in a landscape. This necessitates carrying a larger inventory than a manufacturer who can make his products, and thereby replace his inventory in a few days, weeks or months' time. We cannot streamline our product quickly—if at all. We must, therefore, be more careful to grow only those things which our customers want, and in the quantities which we have a reasonable expectation of selling. Here is one bad mistake which our company made in the past. We have in our nursery about 3,000 globe arbor-vitae. We sell an average number of about 250 per

[Continued on page 16.]

# To Form Chapters at Winter Meetings

*Coming Conventions of State Associations Afford Convenient Gatherings of A. A. N. Members to Organize Chapters Under New By-laws*

In the first two months of this year will be held more than a score of state association meetings, providing convenient opportunities for members of the American Association of Nurserymen in their respective groups to form chapters of the national body under the new by-laws, adopted at the Chicago convention last July. In several states such chapters have already been formed and their charters issued by the executive committee of the national organization. In order that the 1938 A. A. N. convention may function to the fullest degree, other chapters should be formed within the next five months to include all the individual members of the association.

The new by-laws were printed in the volume of proceedings of the 1937 convention sent members last September, and article IV relating to

the board of governors set forth the details of this part of the new plan.

The active membership of the association is to be divided into geographical units called chapters. These chapters are voluntarily formed by A. A. N. members and include those in contiguous territories according to state, regional or local lines, as the active membership within the particular chapter may determine. Such chapters may be established upon application to the executive committee by five or more active members of the association, provided that each such chapter represents all members within the area and they pay dues of not less than \$200 per year to the association.

Each chapter so organized shall elect one delegate to the board of governors and an alternate for the first \$200 of dues paid to the national association by the active members within the chapter, and shall also elect one additional delegate and alternate for each additional \$300 of dues so paid. The delegates, or members of the board of governors, are to be elected for a term of two years, and their terms shall be so arranged that where possible approximately one-half of the members from each chapter shall be elected each year.

At the annual meeting of the A. A. N. next July, the board of governors will elect the officers and transact all business, though the membership at large still has the privilege of the floor and voting its preferences in matters under discussion.

## Chapter Formation.

Although chapters may be formed in any geographical unit desired by those creating the chapter, so far they have proceeded along state lines, and the first three charters were issued to Ohio, Michigan and Illinois chapters. In regions where nurserymen are not numerous, several states may be grouped together as, for instance, North Dakota and South Dakota, which have seven A. A. N. members combined, but not enough separately for a chapter.

Hitherto the organization of chapters has been done by mail, which is

simply accomplished by the members each signing an application form, subsequently clipped together as a charter group application. Copies of such forms are obtainable from a member of the A. A. N. executive committee.

The state meetings, however, form a logical place for organization of chapters, though they do not affect in any way the state associations or their activities. The chapter groups are solely for the purpose of electing delegates to the A. A. N. board of governors. This will be a large board of directors, so to speak, representing the country by geographical divisions and the industry at large.

Since the national association has no jurisdiction to legislate with regard to the established state organizations, it authorizes A. A. N. members in a state, or a locality, or a re-

## First A.A.N. Chapter Charter.

THE AMERICAN ASSOCIATION  
OF NURSERYMEN

CHARTER No. 1

TO ALL WHOM IT MAY CONCERN:

We, the Executive Committee of the American Association of Nurserymen, do hereby constitute and appoint:

Berryhill Nursery Co.	Joseph F. Martin
Bohlender Nursery Co.	Wm. A. Natrop Co.
Herman Brumme Co.	W. N. Scarff's Sons
Call's Nurseries	Sieberts & Co.
M. L. Carr's Sons	Storrs & Harrison Co.
Champion Nurseries	Wayside Gardens
Cole Nursery Co.	Welant Gardens Nursery
Wilbur Dubois & Son	Wroning Nurseries
F. E. Freeman	P. C. Vandervoort
Glendale Nurseries	John E. Venable
Hill Top Nurseries	
Imlay Co.	

CHARTER MEMBERS of the OHIO Chapter of the American Association of Nurserymen,

And we do hereby authorize and empower the above constituted and appointed Charter Members to complete the organization of said Chapter in such manner as to them may seem proper; and we do further authorize and empower said Chapter to receive applications for membership in this Association and to submit such applications to the Executive Committee of the American Association of Nurserymen for action, and to admit such members to the OHIO Chapter when they shall have been and so long as they shall remain members of the American Association of Nurserymen;

And we do further authorize and empower the OHIO Chapter to meet at such times and places as its members shall deem proper, and to hear and determine all and singular such matters and things as relate to the Nursery Business in its Geographical Unit, consistent with the Articles of Incorporation and By-Laws of this Association and as they, from time to time, may be amended;

And lastly, we do hereby further authorize and empower the OHIO Chapter to nominate and appoint its delegate or delegates and alternates to all regular and called meetings of this Association, where they shall be recognized and received and shall become members of the Board of Governors of this Association, invested with all powers and privileges appertaining to such office as provided by the Articles of Incorporation and By-Laws of this Association, and to join with other Chapters in the CENTRAL Region in the nomination of a member to represent said region on the Executive Committee.

IN TESTIMONY WHEREOF, the installed officers of the American Association of Nurserymen have hereunto subscribed their names and caused the Seal of the Association to be affixed at Washington, D. C., this 2nd day of December, 1937.

## Chapter Constitution Form.

CHAPTER  
CONSTITUTION AND BY-LAWS.  
CONSTITUTION.

1—We, the undersigned active members of the American Association of Nurserymen (five or more, paying dues totaling \$200.00 or more), do hereby associate ourselves together to form a Chapter of the American Association of Nurserymen. The name of this Chapter shall be..... Chapter. The geographical unit (contiguous territory) comprising this Chapter shall be:.....

2—The purposes of this organization are to provide a means whereby members of the American Association of Nurserymen located in this section of America may elect members to the Board of Governors of the American Association of Nurserymen and alternates (delegates), as provided in the By-laws of the American Association of Nurserymen, and to better cooperate in every way possible with the officers of the American Association of Nurserymen to promote the nursery industry.

3—The officers of this Chapter shall be a President, Vice-President, Secretary and/or Treasurer, and such officers shall constitute the Executive Committee which is empowered to perform the usual duties performed by such officers.

4—The officers shall be elected annually at a meeting of the active members (in good standing) of the American Association of Nurserymen, between September 1 and June 1, at a place and time designated by the President. The officers shall serve one year or until their successors are elected and qualified. Members of this Chapter (delegates) to serve on Board of Governors of the American Association of Nurserymen, and alternates, shall be elected at the time and place of election of the officers of this Chapter, and in accordance with provisions of Article IV of By-laws of American Association of Nurserymen.

5—After the election of officers and members of Board of Governors, and alternates (delegates), and not later than thirty days before the annual meeting of the American Association of Nurserymen, the Secretary shall report the names and post office addresses of the officers elected, and certify the elected members of Board of Governors and alternates, to the Secretary of the American Association of Nurserymen, with a copy of the Constitution and By-laws, properly completed.

6—This Constitution and By-laws may be amended at any regular meeting of this Chapter by a majority vote of all members present.

## BY-LAWS.

(Such by-laws as are needed to fit the local organization to be made at the time of organizing.)

gion, to combine in a chapter group in order to insure geographical representation on the board of governors, as the directing body of the A. A. N. For the time being, it seems likely that the state conventions will be held annually as now, and at the conclusion of, or at sometime during, such convention, the A. A. N. members of the state or region will gather to elect their delegate, or delegates, as well as alternates, to the board of governors of the national association.

The outstanding object of A. A. N. reorganization is to gain not only direct geographical representation in the management of the national association, but also greater numerical representation by increased membership. So it may be that, in time to come, the members of a state chapter will include all the present members of a state association. At present, however, there is no connection between the two.

In predicting the ultimate interrelation of the state association and the state A. A. N. chapter, one must look far ahead. The federal government of the United States of America was not set up promptly nor did it function immediately. The first federation broke up, and the present one was on the verge of disruption several times in its early years. A number of amendments were necessary to the federal Constitution, and our form of government under it has changed with the times. So the step being taken this year in the formation of state or regional chapters is the start toward a federation of nurserymen's groups which it is expected will ultimately bring into the national association a far larger portion of the industry than has been included in the past.

#### First Charter.

The form of charter followed in the organization of A. A. N. chapters may be seen in the accompanying charter issued to the Ohio chapter.

While applications can be gathered by mail, it seems easier and more logical to obtain signatures and to elect delegates when members are gathered together for state conventions the coming months. The A. A. N. by-laws require that the chapters be organized and have elected their delegates to the board of governors in time to have such

election certified thirty days before the annual convention of the A. A. N., which means that such elections must be certified by the middle of June if the chapters are to have their votes represented at the annual convention in July.

For ease in formation of the chapters, the executive committee of the A. A. N. has provided a short form of constitution which may be adopted on organization, with such by-laws as may be required, and enlarged by amendment as conditions may make advisable through subsequent developments.

Now that the facilities are provided for the A. A. N. to function as a representative national body, constituting a federation of state or regional chapters, the next essential is to effect the organization of chapters and to elect delegates to the board of governors. Members in each state not having yet made application should act at the earliest opportunity in order that they will be certain to be represented at the annual convention next July.

#### WHITE OPENS OFFICE.

Assuming his duties as executive secretary and Washington representative of the American Association of Nurserymen, Richard P. White moved to the national capital to reside there beginning January 1, and he has opened the office of the association in the Southern building, 1425 H street, N. W., Washington, D. C.

Richard P. White resigned, effective December 31, as research specialist in diseases of ornamental plants at the New Jersey agricultural experiment station, New Brunswick, N. J., to become executive secretary of the American Association of Nurserymen. In making the announcement, Dr. W. H. Martin, New Jersey experiment station research director, paid tribute to Dr. White's achievements during his eleven years of service and expressed regret that New Jersey is losing "so valuable a man."

Col. E. A. Phillips, president of the New Jersey Nurserymen's Association, stated that New Jersey will suffer a distinct loss through the resignation of Dr. White, whom he credited with having saved the nursery business from tremendous annual losses by his research in plant disease control.

"He has made splendid contribu-

tions," Colonel Phillips declared, "and has always been willing to co-operate." He added that Dr. White's departure from New Jersey will be a loss not only to the organization he heads, but also to the North Jersey Metropolitan Nurserymen's Association.

Also commenting on Dr. White's resignation, Ralph Huttenloch, president of the New Jersey Federation of Shade Tree Commissions, stated, "We are going to feel the loss of Dr. White most keenly." Recalling recent annual conventions of that body held at New Brunswick, Mr. Huttenloch declared, "Both Dr. and Mrs. White have been most gracious to the federation, and the federation owes an incalculable debt to Dr. White for his splendid inspiration and leadership."

#### MILTON'S ANNIVERSARY.

With the new year, 1938, the Milton Nursery Co., Milton, Ore., celebrates its sixtieth anniversary. In the year 1878, A. Miller, acting on his foresight and faith in the Pacific northwest, started a small nursery at Milton. Modest at first, but favored by climate, soil and a demand for fruit trees in this new country, the business grew into larger proportions, necessitating in a few years the help of the oldest son, S. A. Miller, who in 1896 took the active management. This continued growth called for the additional assistance of two other sons, G. W. Miller and C. B. Miller.

The business was conducted under the name of A. Miller & Sons until 1908, when the Milton Nursery Co. was incorporated. The land at the present time consists of 325 acres, so that the firm has the distinction of being one of the largest and oldest nurseries operating in the Pacific northwest.

The fact that the personnel of the company remained intact until the decease of the founder, A. Miller, in 1925, at the ripe age of 95 years and 6 months, and S. A. Miller, in 1932, has made possible the perpetuation of the principles of honesty of product and fair treatment of patrons upon which the business was founded. Under the experienced management of the two remaining sons and C. D. Hobbs, an associate since 1904, the business continues along the same lines as before with a steady effort to better the product wherever possible.

# Native Plants of Garden Value

*Twenty-third and Final Article on Neglected Opportunities  
for Nurserymen in Native Plant Material—By C. W. Wood*

Stellarias, or stitchworts, are looked upon, in general, by gardeners as weeds, owing, no doubt, to the pestiferous chickweed and others of its kind that make our lives harder to bear. And the incorrect use of violent spreaders like *S. graminea* and *S. radicans* has not made matters better. There are a few really good plants in the genus, however, a fact that is particularly true of the alpine species. The latter are not likely ever to become common, because they cannot be numbered among the easy doers, but a few are really choice plants for the connoisseur who is ready to give his treasures the attention they demand. The foregoing is true of an arctic and subarctic species, *S. longipes laeta*, which I had from a friend several years ago. It has about the bluest foliage of any plant I have ever seen, and in the crevices of a northward-facing wall it spreads its blue mats, over which shine bright, white stars in early summer. Altogether it is a lovely ornament that careful gardeners would undoubtedly embrace with joy. The way it dies out at times for no apparent reason is rather disconcerting, but it usually leaves a few bits of live roots, which quickly cover up the wreckage. No doubt there is some simple reason at the back of this procedure which could be corrected after a little experimenting. I have had best success with it under garden conditions in a leaf mold soil in a north wall, and it does well in a shaded frame, where it gets plenty of moisture.

## Stenanthium.

Stenanthiums are lily cousins which are seldom seen in gardens and probably never will be highly popular. They are, in the first place, not showy, but two species, at least, are fine ornaments if correctly placed. As usually grown, *Stenanthium robustum* and its near relative, *S. gramineum*, plants of the Allegheny mountains and the south, grow not more than eighteen inches high and are not likely to attract much attention even when they are carrying

their long racemes of small whitish flowers, but give them a rich soil and an abundance of moisture, as I noticed in a private garden a few years ago, where they were grown on the edge of a bog, and they may reach as high as four feet. They are then really ornamental, with lower grass-like leaves as much as a foot in length and wand-like stems carrying an incredible number of flowers. *S. occidentale*, from the northwestern states, inland as far as Idaho, is smaller, seldom exceeding eighteen inches in height, as I have seen it, with broader leaves, which are linear-lanceolate in outline, and dark purple, nodding flowers. They are to be grown from seeds, which should be planted outdoors as soon as ripe.

## Stokesia.

Conditions have changed during late years in regard to the popularity of Stokes' aster, but there is still room for much improvement. No doubt much of the neglect which gardeners have displayed has been founded on misleading statements made in the early literature on the subject about the plant's miffiness. In some quarters it was thought to resent winter damp, while, as a matter of fact, it pays no attention to that condition, provided its home is well drained. That, at least, has been the experience in my light soil. If your soil is heavy and you have had trouble keeping the plant over winter, it is not at all unlikely that conditions will be changed when good drainage is provided. Again, it was long thought that the plant was suited only to greenhouse culture in the north. On the contrary, it is quite hardy even in latitude 45 degrees, and I seldom lose it except in snowless winters. It is a grand plant, suitable for either border decoration or cutting, growing two feet high under good culture in the south, though it seldom exceeds a foot this far north, and the showy blue flowers, as much as three inches across, are produced from August to frost. It is easily reproduced from seeds or division and no doubt from stem

and root cuttings if rapid multiplication is needed.

## Stylophorum.

*Stylophorum diphyllum*, the celandine poppy, much used in old-time gardens, seems to have lost favor among modern garden makers. It possesses merits, though, which entitle it to as much attention as was ever given it. Contrary to the behavior of most members of the poppy family, this one is easy to handle, transplanting with ease and doing well in any moist soil in sun or shade, but best, according to my experience, in partial shade. The flowers are yellow, about two inches in diameter, in clusters up to five in number on 8-inch to 12-inch plants during May and June. Propagation is by seeds or division.

## Swertia.

The only American swertia that I have known is *S. perennis*, a cosmopolitan member of the gentian family found in Europe and Asia and again in the central regions of the Rockies. It is a bog plant in nature and needs similar conditions in the garden. It is not brilliant in the manner of some gentians, but is a useful thing for damp spots in sun or light shade, where, during June and July, it will display its 10-inch pyramid of blue purple flowers. Seeds sown in autumn in pans and placed in a frame to freeze during the winter provide perhaps the best method of propagation.

## Synthyris.

*Synthyris* is a curious genus of western American plants closely related to wulfenia and, I believe, to veronica. There are more than a dozen species, and I have yet to see one that is not a good garden ornament, though some who must have showiness in their plants may dispute the point. I have seen the statement made that they are difficult to grow under eastern conditions, but believe that is true only of the alpine forms, like *S. alpina* and *pinnatifida*, for the woodland species, such as

plantaginea, rotundifolia and Sweetseri, are quite easy if they are given shade and moisture. And, doing well in shade, they give us good material for situations which are often poorly clothed. All that I have grown prefer a deep, rich soil that is at least slightly acid and shade which may vary from light in the case of plantaginea to dense for reniformis, rotundifolia and others of that class. In addition to the foregoing, the alpine forms need the cooling effects of a moist moraine.

I shall not take the space to describe all the good kinds that are available, but I should like to draw special attention to two or three kinds which I have found of more than ordinary beauty. Of these *S. pinnatifida*, especially in its variety *lanuginosa*, is an outstandingly beautiful plant in its much-divided foliage, downy and gray in the type and woolly white in *lanuginosa*, and with its 6-inch plumes of dark blue flowers in spring. Incidentally, blue, or shades of blue, as to color and early spring as to flowering period, at least under midwest conditions, are characteristic of the race. *S. Sweetseri* seems to be close to *S. rotundifolia*, but experience in my northern climate shows it to be a better plant, if for no other reason than the beautiful colors the foliage takes on at the approach of fall. I believe, though, that *S. schizantha* will make the greatest appeal to the general run of gardeners because of its broad spreads of foliage. Individual leaves of this species are three inches or more in diameter on stalks up to five inches in length making a single plant close to a foot across. The dark blue flowers on 8-inch stems are no small part of the plant's charm. The foregoing is just a beginning in this interesting genus. Any *synthyris* that you can get will give an idea of the beauty and usefulness of the genus. I have never tried reproduction except by seedage, but can see no reason why the rhizome could not be split up.

#### Thermopsis.

Of the numerous native species of *thermopsis*, just one, so far as I know, is known to any extent in gardens. This particular one, *T. caroliniana*, deserves all of the attention ever given it. Its legume-like foliage (a legume it is, too) on plants up

to four feet in height would be ornamental if the plant never bloomed, but the bright yellow flowers in erect racemes, a foot long in well grown specimens, during June and July make it one of the best plants for the wild garden in light shade. Nor is it to be ignored as a border plant. *T. mollis*, another Carolina plant, has not been hardy in my garden. It is not so tall as the first named, perhaps seldom exceeding two feet.

Two western species of *thermopsis*, *montana* and *rhombifolia*, are not without merit as garden plants. I have grown the latter in the rock garden, where it made a lovely picture, with its bright yellow flowers for six or eight weeks in early summer. It is low-growing, usually less than eight inches, while *T. montana* reaches a foot to fifteen inches in height and has showy, yellow, pea flowers in long spikes in spring.

It is recommended to propagate *thermopsis* from division. I have found seedage much better, however, for my needs. The seeds are sometimes hard to germinate and may then be sown outdoors in autumn. I prefer, though, to plant one or two seeds in a thumb pot of granulated peat, plunging the pots to the brim in a bench or hotbed in early spring. That plan usually gives good germination and produces plants large enough for the field at planting-out time. Incidentally, that is a good way to handle many seeds that are hard to germinate.

#### Verbena.

I know of nothing more fitting to close this series on native plants of garden value than the hardy *verbenas*, especially the much-neglected *V. bipinnatifida*. If space were available it might be profitable to cover the other hardy species, but they will have to wait until another time. Either the floras are incorrect when they give an ultimate height of eighteen inches to *V. bipinnatifida* or I have not given mine proper care, for my plants seldom exceed one-third of that figure. There is considerable variation in flower color in plants from the different parts of its range from Mexico to South Dakota, though the color is usually somewhere near lilac. A plant from South Dakota has, however, turned out to be a beautiful deep lavender, a more pleasing shade

than I have ever had. This species is another of the long-time bloomers, the period lasting from mid-May to October with me, that would undoubtedly become popular among gardeners if they were shown good color forms. The plant is hardy, at least that from the northern edge of its range, and is easily accommodated in any dry, well drained spot in sun. Vegetative reproduction is readily accomplished by means of cuttings at any season they are available.

#### M. H. S. MEDALS AWARDED.

Frederick Law Olmsted, Brookline, Mass., was awarded the George Robert White medal of honor by the Massachusetts Horticultural Society at the December meeting of the trustees. Mr. Olmsted is the famous son of an equally famous father and is head of a firm which has been responsible for much of the best landscape work in all parts of the United States. In 1910, President Taft appointed him a member of the committee of fine arts with the duty of passing upon designs for works of art and public improvements in the District of Columbia. In the same year, he was elected chairman of the executive committee created to arrange for a national conference on city planning. These are only a few of the important positions which he has held.

The Thomas Roland medal, which is awarded each year for skill in horticulture, was given to Dr. A. B. Stout, of the New York Botanical Garden, for his work in the breeding and propagation of day lilies.

The Jackson Dawson memorial medal was voted to J. E. Spingarn, Amenia, N. Y., who is known for his work with the clematis.

The society's large gold medal was awarded to Lord Aberconway, V.M.H., president of the Royal Horticultural Society of Great Britain, for distinguished service in the field of horticulture.

The society's large gold medal was voted to Richard Wellington, of the New York agricultural experiment station, for his work in the breeding of fruits.

The society's large gold medal was also awarded to Dr. Alfred Rehder, curator of the Arnold Arboretum and long prominent in the field of botany.



## Charlie Chestnut



### Gives His Annual Resolutions

The other day I got to figgurin what I might get for my wife for Christmas, something that was showy, but not too expensive and that started me to checking up on the calender to see how many days it was till pay day. As I was sitten there adding up and figgering I seen it was only a few days till 1938 and naturally I got to thinking about new resolutions for Jan. 1. I says it sure would be a swell idea if the different nurserymen would decide to make a few resolutions. I can think of a lot of different stuff which is wrong with nurserymen and I says to myself Charlie you should bring the different matters up in the paper so the nurserymen will know what to do.

Winter come on a little early this year so we got the work all done at the nursery and I says to my boss, I guess they aint much to do at the nursery right now and I have got a notion to go out and call on some nurseries here and there to spy on what they have been up to. Well my boss says you aint no good to me around here so might as well go. We argued a little about the expense acct. and he finally says I will leave you have money for board and room but not no amt. for cigars, laundry or miscellaneous. So I took him up and my wife packed my lunch for three days ahead and I took my extra shirt and was off for my calls on the nurserymen. Here is where it comes in that I could see the need of a few resolutions for the different nurserymen.

There is a certain nurseryman, which I wont mention no names and which has been to our place a few times, and also which I have seen at the convention. I says I have never seen his place so I will go there first. I figgered I would get there at about 11:30 in the a.m. and probably he would ask me to his house for dinner which would help out on the expense account. I got to the town where he gets his mail and went to a garage so I could find out where the nurseryman was at. The garage man knew the nurseryman and he says he could tell me just how to get out there. He says you

go to the 2nd stop sign and turn right, then you go 2 miles and turn right again. Then you cross a bridge and turn right and go by a school house and he is right ahead on that road, you cant miss it. I give him a 5c cigar and started out so I would get there about dinner time. I guess I was gone about a hour when I seen something that looked a little familiar and there right in front of me was that same garage. So I went in and I says to the garage man, Well I guess I made a wrong turn or something on account of I didnt see no hide nor hair of any nursery. Come to find out he claims he said turn left at the stop sign as he knew very well that turn right would not be any good to get to the nursery. So I started out again and went about 3 miles when I came to a detour which I followed for 20 miles until I finally give up trying to find the place at all. I went into a beer parlor to ask directions and bought two beers as a favor to the bar tender who very kindly wrote me a map of just how to locate the nursery. When I got to the nursery finally it was a quarter to five and I couldnt see anything and there wasnt nobody in sight in the place so I give it up and went back to find a tourist home which was 50c and I went right to bed after I got 2 hamburgers and a cup of coffee. As I was laying there in bed I thot of a good resolution for nurserymen as follows: "Don't hide the nursery. Put it on a main road and have a sign here and there where people can tell where you are at."

Next morning I got a good breakfast for 15c and laid out my calls for the day. I seen it was 60 miles to a nursery where I knew the nurseryman as he had had a free meal from me one time when I had a expense acct. at the convention. So I started at 6 a.m. I didnt get a real early start as my battery in the Ford was low and I did not want to use the lights. I got to the nursery at 10 a.m. and drove right up to the office which was a 2 car garage that had a sign "Office" on the door. There was a girl in there with a

book where she was writing some figgers in and I give her a card with my name which I had made up real neat on the typewriter. She give me a awful sour faced look and I says to myself that girl would not be no boon to business if somebody came in that was wanting to buy some peonies or some other stuff. She says Mr. Blue is at his house and he might be in and he might not and then she went on writing in the book. After 15 min. I says where is the house where he is at and she points up the road a piece where I seen 3 houses all in a bunch so I went out and drove up to a house which I thot was the wrong one as a lady come out and says we dont buy nothing from peddlers. When she had the door open I seen Mr. Blue reading with his feet up on the cook stove, so I give my card and says I would like to see Mr. Blue. She shut the door and after a little Mr. Blue come out on the porch with his house slippers on and says gruffly he dont want to buy nothing. I says I dont want to sell nothing. Then he says well we dont holesale nothing to the trade. And I says I wasnt figgering on buying anything. Well what do you want he says and I says I was just passing by and stopped in to say "hello" and that I would look the place over a little. He had one hand on the door knob and was edging in towards the house. He says you can get a good view of the nursery from right there along the highway. As he stepped inside I got a good whiff of a pork roast which was in the oven but I did not say nothing and went back to the car. As I was driving down the road to a tavern where I had a beer and a bowl of chili I got to wondering why a nurseryman at a convention will slap you on the back and give you a smile, and when you get them on their own range they act like they was going to snap your head off. So I thot of another resolution as follows: "It don't do no harm to be courteous and treat visitors like they was humans."

I was a little down hearted so I went to a beer parlor where there was a friendly bar tender and he sure treated me fine and finally I slept all night in the back room and he did not charge me nothin.

Next a.m. I got out my maps and decided to drive south where I have

heard of southern hospitality. So I drove all day and did not pay no attention to nurseries on the way.

Next a.m. I was surprised to see I was approaching an old nursery that I had heard about for 20 years so I drove in. This nurseryman come running out and brought me into the house where we had a cup of coffee and his missus made me a big stake of pan cakes which sure tasted good. He says I want to show you the nursery and took me out in back of the barn. He says we buy most everything and all there was to the nursery was a few fruit trees heeled in and a few shrubs and some seed beds and 3 or 4 frames. He said he had not had time to clean up this year and the weeds and junk was all over the place. We went over to the office which sure was a mess. There was a 1916 model Ford with the wheels off by the side of the office. Two of the windows was covered with cardboard and the only chairs was 3 nail kegs with burlap nailed over the top. We talked and talked all the forenoon and then we went into the house where his woman had fixed up a swell rabbit pie. He sure treated me fine but I felt sorry for him. I made him a special resolution: "How in the world can a nurseryman sell the idea of beautiful plantings and fine grounds when his own place looks like a junk yard."

That night I checked up on my expense acct. and as I had a free meal and no expense for a room I would stay out and make a few more calls. About noon I come to a nursery of a nurseryman which has quite a name around in that part of the country so I was glad to get a chance to visit him. He says lets go out to lunch so we went to a good place and I thot this was a chance for a saving as I could get by with a 25c supper. When the meal was over the waiter brought the bill and the nurseryman seen him coming I guess, as he says pardon me while I telephone. So the waiter give me the bill which was \$1.60 and I was up against it. That made me put out all the afternoon and I wasnt in no good humor. We got on the subject of the Washington representative and he said he was against it. He says let the big nurserymen pay for it, I aint in no position to pay a big salary for anybody to live offen the nurserymen

at Wash., D. C. Then I brought up the state nurserymen assn. which I says I notice you aint a member. Nope, he says, I cant afford it. Oh I go to the meeting, he says, and do a little business but I dont believe in these conventions and I aint never joined up. I was thinking all the time about paying for that dinner and I didnt like his stingy attitude and I was pretty mad. Finally I said you are sure a hell of a boon to the nursery trade. If we had more like you we would get places and do things big and fast. But he was too dumb. He thought I was giving him a compliment.

I give up and drove away. I says to myself he needs a resolution bad. I wrote it down right there as I was getting 5 gal. of gas and heading home: "Don't be a leaner. If you dont want to help, then quit passing yourself off for a nurseryman." I guess I was in a nasty mood.

#### SALES AT CHRISTMAS.

To keep busy the year around has been the object of an increasing number of nurserymen in recent years, and one way has been to create sales out of season.

The Christmas number of "The Four Seasons," the house organ of the Towson Nurseries, Inc., Towson, Md., told about the Old Trail Plant Shop, established several years ago, as follows:

"Several years ago, the management of Towson Nurseries decided to establish, for the convenience of the thousands of flower lovers in the Baltimore area, a plant shop which would make available a host of unusual novelties, gifts, living trees, shrubs, perennials and house plants appropriate to the seasons and holidays of the year. Since its establishment, Old Trail Plant Shop has been a source of pleasure and delight to its many friends and customers who visit it regularly.

"This Christmas, the Old Trail Plant Shop has an unusual display of wreaths in many sizes and combinations; nursery-grown Christmas trees, freshly cut every day; living Christmas trees in attractive metal containers, which may be planted outdoors after Christmas; exciting new novelties from all corners of the earth; and so many different Christmas gifts, they must be seen to be adequately appreciated."

Another feature of the same issue was a reproduction of the Christmas rose, *Helleborus niger*, featured on the cover of the December 15 issue of the American Nurseryman. A short article printed in "The Four Seasons" last year brought so many inquiries that the stock of this rare plant at the Towson Nurseries had to be replenished. Such is the effect of good advertising.

#### FOR CHRISTMAS ORDERS.

An illustrated folder on holly was mailed out by the F. & F. Nurseries, Springfield, N. J., to reach customers and prospects shortly before Christmas. Accompanying it were a price list and a little card suggesting that a unique gift idea would be to order holly plants to be delivered in early spring to friends.

Regardless of the acceptance of the idea, the folder won attention by its unusual character. With it went a return mailing card on which prospects were asked to check subjects of special interest on which the nursery service might be helpful.

In timeliness, character and interest, this mailing piece was triply commendable.

#### MITELLA DIPHYLLA.

*Mitella diphylla* is excellent for shady places, yet seems to be little known. It usually grows in woods, from Canada south to the Carolinas and west to the central states. It is therefore reliably hardy, writes T. F. Martin in *Horticulture*.

Like the *heuchera*, *M. diphylla* makes an interesting ground cover. It is a trim foliage plant, lasting late into the season. The somewhat lobed, heart-shaped leaves stand up on slender petioles, making a compact and well rounded plant. In early spring the numerous flower stems push up through the foliage with delicate racemes, on which many small, lacy, white flowers appear. The flower spikes are about a foot high.

After the flowers have disappeared, the foliage persists throughout the summer, and is always clean and green. With the advent of autumn, the foliage turns a beautiful bronze or reddish color and persists through the winter. Doing best in wood shade, even in full sun *M. diphylla* will prosper.

# From Scientific Sources

*Facts of Value to Nurserymen Found in Recent Bulletins on Research Work Being Done at Various State Agricultural Experiment Stations*

## ELM DISEASES.

Illinois nurserymen have heard at their state conventions Dr. L. R. Tehon, botanist of the state national history survey, report on studies of American elm diseases. In fact, the Illinois State Nurserymen's Association and its secretary, Miles W. Bryant, are given credit for rendering many services, notable among which was the establishment of a quarter-acre experimental elm nursery for this study. The use of special elm blocks and contributions of labor and equipment from the Freeman Nurseries and Swain Nelson & Sons Co. also were of aid. The late P. A. Glenn, chief plant inspector, gave his personal help and furnished diseased material.

Report on these studies appears in the seventy pages of the bulletin of the state natural history survey, volume XX, article 1, entitled, "Initial Studies of American Elm Diseases in Illinois," by Hubert A. Harris.

Results of the investigations concerning the nature of the elm malady in Illinois show, primarily, that the so-called "elm wilt" is not a single disease, but is in reality several different diseases. These diseases manifest themselves in a number of forms, such as twig blights, cankers, diebacks and true wilts. They are statewide in distribution and occur in nursery, parkway and lawn trees. During the past few years thousands of elms have been lost in nurseries and many valuable trees standing in cities have been killed.

Most important of these diseases in Illinois is one that appears to be caused by coniothyrium. It manifests itself outwardly as a twig blight and canker and internally as a mycosis of the water-conducting tissues. Other important diseases are caused by phoma, sphæroopsis, vermicularia and verticillium.

The Dutch elm disease has never been found in Illinois, though the other diseases have been popularly mistaken for it.

Nearly 200 diseased trees have received laboratory examinations during the course of the investigation

and over 500 isolations of fungi have been secured, among which are twenty genera and about thirty species. The pathogenicity of these various fungi is as yet not completely determined, though infection experiments are progressing at the present time.

The problem of controlling these diseases will prove complex, since several diseases, rather than one, have to be considered. In preliminary experiments conducted in nurseries, Bordeaux mixture has given encouraging results, and pruning when carefully practiced has proved valuable also.

## WINTER INJURY.

Widespread winter injury two and three years ago led orchardists to seek a means of predicting the probable recovery of damaged apple trees. So the Maine agricultural experiment station undertook a test by freezing twigs at least 2 years old of eight varieties of apple tree in an artificial freezing chamber. The results are published in bulletin 388, "A Histological Evaluation of Low Temperature Injury to Apple Trees," just received.

The ultimate recovery of apple wood injured by low temperature is apparently dependent upon the development and maintenance of sufficient foliage to promote growth. Environmental conditions are often a determining factor. Anatomically this is possible only if some storage cells remain alive and the xylem remains capable of conduction after the period of low temperature. In no case was the dormant cambium found to be injured, even after artificial freezing when the branches were subjected to a lower temperature than was ever recorded in the orchards.

## APPLES FROM CUTTINGS.

Current interest in the production and use of own-root stocks as a means of decreasing variability in the growth and production of apple trees caused V. T. Stoutemyer, at the Iowa agricultural experiment station, to

make studies in an attempt to investigate and describe the capacity for regeneration in various types of wood produced by apple trees. Methods of rooting were sought which would be effective with widely different varieties and species of apples, including those which do not develop burr-knots or other pre-formed root primordia. A better understanding of the fundamental anatomical and physiological principles of the development of apple trees throughout their complete life history was sought, as it was believed that only by obtaining new information on these fundamental principles could any real advances be made toward solving the problem of vegetative propagation of the apple.

The result of his studies is contained in research bulletin 220, issued by the Iowa station under date of September, 1937, and just received. The forty pages of text is written in scientific phraseology, not in popular vein, as it is taken from a thesis submitted by the author for his doctor's degree. But nurserymen particularly interested in the propagation of apple trees may wish to give the bulletin study.

The present interest in own-root stocks was aroused by two lines of investigation. There were: First, numerous critical statistical studies of the individual behavior of orchard trees suggested that much of the variability which occurred in bearing trees might be due to genetic differences in the seedling understocks; second, certain English investigators, basing their work on experimental observations, reclassified the common European apple stocks and recommended certain types of dwarf and standard own-rooted stocks as a means of producing uniformity in orchard trees.

Although the development of own-rooted or clonal lines of root-stocks may be desirable, the fact still remains that the ordinary vegetative methods for propagating fruit tree stocks are not sufficiently practical to meet the needs of the commercial producers of trees. Certain understocks may be particularly well

adapted to special conditions, but their propagation on own roots, except to meet experimental needs, is expensive under present conditions.

The inadequacy of the commonly used seedling rootstocks for some environmental conditions has been recognized by practical growers, who, in an attempt to remedy the situation, have made extensive use of double-working (using an intermediate stock between rootstock and desired variety) and top grafting (grafting the desired variety on branches above trunk). The increase in hardiness, vigor and longevity of apple varieties when top-worked on certain intermediate stocks is generally well known. Many varieties form good unions and are productive on stocks of one variety and are poor growers on others. Stocks may also influence the character of the growth of the top in various ways. Northern Spy has been used as an own-rooted stock because of its resistance to infestation by woolly aphis. Grimes Golden and Tompkins King are often double-worked or top grafted on another variety in order to escape the destruction of the tree by collar rot. Thus the use of vegetatively propagated stocks can be related in many ways to commercial fruit growing.

Two distinct growth phases were demonstrated to exist in apple trees. These phases were closely related to the ease of regeneration of roots on stems. Stem cuttings of wood in the mature phase were difficult to root without special treatments, while those made from shoots in the juvenile phase rooted readily.

The juvenile condition was recognized by the thinness of the leaves and small amount of pubescence. Anthocyanin production was abundant in juvenile shoots. In some species of apple the shape of the leaf changed with maturity from an entire to a lobed form.

Shoots having the juvenile characteristics of young apple seedlings were produced from roots of older trees. Stem cuttings made from these shoots usually formed roots readily. Juvenile shoots were produced from adventitious buds on roots and possibly from adventitious buds on limbs of mature trees.

Water sprouts were found to originate from latent buds rather than from adventitious buds. The only adventitious buds produced on stems

were found on sphæroplasts. Adventitious buds were produced readily on roots, especially if the latter were placed under favorable conditions of temperature and moisture. These buds arose from parenchyma in the secondary cortex and thus had no connection with the cambium of the root.

The change from juvenile to mature form was not related to the beginning of secondary growth in the plants, the loss of primary structures, or to the stage of organization of internal tissues of the stem. The expression of growth phases, together with the accompanying changes in ease of root formation, is believed to be dependent upon certain biochemical factors not clearly understood at present.

### STOCKS FOR FRUIT TREES.

Because of the interest expressed in the comments on the dwarfing stocks developed at the East Malling research station, in England, under the heading of "Dwarf Fruit Trees" in the preceding issue, the following notes from an English publication on the work at East Malling are published for the further information they give:

It is many years since the work on rootstocks began at East Malling, and it has naturally taken time to prove the results and learn the true character of the stocks from the behavior of trees worked on them. Some modifications of first impressions have been found necessary in the light of experience.

The majority of apples of bush form are still planted on Malling No. II, but No. I, at first thought to be very vigorous, is now classed in the semidwarfing group and is being increasingly used for bushes. It has a better anchorage than No. II and is certainly to be preferred on poor soils. However, No. II brings trees into bearing rather sooner and is likely to be employed for most bush apples planted in private gardens. It should always be used for Cox's Orange Pippin in bush form.

The very dwarfing No. IX is the most suitable stock for cordon apples, for temporary filler trees in commercial plantations and for very small bushes in highly cultivated garden soil. It gives trees which come into bearing in the third year after planting as 2-year-olds, but it has a poor anchorage, so that it must be permanently staked, and produces fruit which is apt to be too large in the case of several varieties.

For standards and half-standards No. XVI is now probably the favorite, though No. XII is also good on very poor soil. No. XIII is not favored so much as it was at first, as it has been found that the vigor of the trees declines with age. When trees on the best of these stocks cannot be obtained, there is little to be said against standards on "crab" from good nurseries—in fact, a good many commercial growers prefer them.

Pears are now almost invariably planted on quince A (the Angers quince); this gives semidwarfed trees which come quickly into bearing. A great discovery at East Malling has been quince C, which is very dwarfing and corresponds for pears to No. IX for apples. It is excellent for cordons and for very small bushes in gardens.

Probably the best stock for plums, provided that large trees are not objected to, is Myrobalan B, except for Victoria, which is considered to be more liable to silverleaf on it. For smaller trees and quicker results, Common Mussel is the best we have at present, unless trees on Pershore can be obtained.

### NEW YORK GARDEN HEAD.

Dr. William J. Robbins, chairman of the department of botany and dean of the graduate school of the University of Missouri, has been appointed director of the New York Botanical Garden, to succeed Dr. Marshall A. Howe, who died last December. Dr. Robbins is 47 years of age and has had a wide experience in botanical research and executive direction. He was professor of botany at Missouri from 1919 until his departure for New York. He has also now been appointed professor of botany at Columbia University. A biography of him appears in the November journal of the garden.

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## GARDEN CRUISES.

William N. Craig, Weymouth, Mass., will personally conduct a group of garden lovers to the West Indies, sailing from New York, January 21, on the Britannic. The first port of call will be Nassau, where many estates and private gardens will be visited. At Kingston, Jamaica, the government horticulturist will explain many of the interesting fruits, flowers and plants peculiar to the island. In Havana a visit will be made to a private experimental station and to the Cuban government's experimental farms. Mr. Craig's knowledge of horticulture will do much toward making the trip an outstanding success. He is president of the Massachusetts Nurserymen's Association and has served that organization and the New England Nurserymen's Association as secretary for many terms.

The Horticultural Society of New York is to sponsor a garden tour of Europe in 1938 like that in 1935. The party will sail from New York, April 26, on the Statendam. Four nights will be spent in Amsterdam, two at The Hague and three at Middleburg. A brief visit to Brussels will be followed by about a week in Paris and then by another week in London. The return voyage will be on the Nieuw Amsterdam, sailing from Southampton June 2. Visits will be made to the spring show of the French Horticultural Society and to the Chelsea show of the Royal Horticultural Society in London.

## PART-TIME FARMING.

The depression has given impetus to part-time farming by the spread of the idea that clerical and industrial workers might provide for their greater economic security by having one foot in the country. Originally, part-time farming probably first appeared from attempts of families engaged in agricultural pursuits to supplement their farm income. Improved transportation and wider power distribution have gradually added to the number engaged in part-time farming by persons primarily employed in office or factory.

The bureau of the census has just issued a 200-page volume on part-time farming in the United States as of January 1, 1935. It might be explained that a tract of land of less

than three acres was not reported as a farm unless its agricultural products were valued at \$250 or more in 1934. However, ranches, nurseries, greenhouses, hatcheries, seed lots and aviaries were considered farms. The number of part-time farmers in the United States, 2,077,474, represented 30.5 per cent of the 6,812,350 total number of farm operators.

The classification of these part-time farmers depends upon definition, and this was approached by tabulations in time groups. Out of all farm operators, fourteen per cent worked one to forty-nine days at other jobs, eleven per cent worked 100 days or more. If the group who worked fifty to ninety-nine days at outside work were included with the first group, then nearly twenty per cent had farming as the main occupation with an outside source of income, whereas if the group were

considered with the latter then about sixteen per cent had agriculture as a secondary source of income. Summarizing, somewhere between forty-five and sixty-three per cent of farm operators with outside labor income had farming activities as the main source of income, and from thirty-seven to fifty-five per cent had farming activities as their secondary source of income.

Thus part-time farming has become an essential factor in considering questions of the day, such as social security, farm tenancy, labor, industrial relation, size of family, relief and many other problems.

PERSONS seeking sources of supply for rare woody plants may get help from the Arnold Arboretum, which, in connection with some other work, has just completed checking some 1,200 nursery catalogues for rare woody plants.

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**PROFITS IN PROPHECY.**

[Continued from page 6.]

year. We have about 7,000 Pfitzer junipers and sell approximately 1,000 per year. This is true of a number of other items. In many cases, a large amount of this material has been spoiled because the sales were not sufficient to keep it thinned out, and as a consequence, we have had to grub them out and throw them on the brush pile. I should like to have a nickel for every dollar which has been burned up in American nurserymen's brush piles. To get a surplus such as the above, it is obvious that there has been no correlation between sales and production. We grew things in thousands because it only cost 10 cents each to grow 10,000, whereas it cost 15 cents each to grow only 1,000. Back in the boom days, great stress was put on buying in large quantities in order to get a discount, with the happy optimism that, somehow or other, the sales would take care of themselves. Too often the propagator was allowed to grow pretty much what he wanted to, and it was only natural for him to grow things which would do well, such as honeysuckle, and skip things which had so high a loss percentage as an item like Koster's spruce. It follows that one step forward in the sales program would be to figure out what quantities you should have in each variety, and then in some way develop a use for the surplus material which you have, making a special effort to push it until your inventory is in line with your expected sales. I definitely do not mean by this that you should sell your customer Norway spruce to be put in a location where there should be hemlocks. Any policy such as this will eventually lead to ill-will and loss of the customer. Rather try to figure out new uses for plants—make hedges of the evergreens and shrubs which are adaptable to it but which have not been used in hedgerows before, either on account of their price or because no one thought of it.

To whom do we want to sell it? An off-hand answer would be, "Everyone." But a further study, I am sure, would convince you that that is not the case. It isn't profitable to spread your sales effort too widely. It is much better to sharpshoot than to use scatter-shot. Go over your territory and pick out the most logical places where the material you

have is most apt to be needed. Figure out, from your experience, what size jobs are the most profitable for you to handle. It is foolish for a small company, equipped to do an annual business of \$20,000, to go after the undeveloped large estate which requires an expenditure of from \$10,000 to \$50,000. Besides not being properly equipped, the small company probably would be unable to sell the job as it should be done. The larger jobs are not always the most profitable. When you have determined the size of job most profitable to you, eliminate from your prospect list all those who cannot afford this large a job, and all those for whom this size job would be inadequate. Then, use the amount of money that you ordinarily broadcast to your large list for a more intensive program on your logical prospects.

When do we want to sell? Right now! Before we can make much progress as an industry, we must build up the off-season business, and right now is the time to do it. Study your products and services to see which ones may be done during the winter. Study your list of customers and prospects to see which ones need the kind of work which can be done now, and make a superhuman effort to get them to do it. This calls for a more than technical knowledge of nursery stock, design and construction engineering. It calls for a general knowledge of merchandising, a general knowledge of sales psychology and a general knowledge of what makes people buy. In addition

to this, it calls for a thorough knowledge of the limited number of sales methods which will fit our particular problem. It calls for a fertile imagination to think up new sales ideas, and a large degree of the courage necessary to spend money to back up these new ideas. I doubt whether anyone in the industry is capable of doing this job thoroughly without outside help. We have felt that way for some time and have hired a number of outside brains to help us solve our problems. Not being entirely satisfied with past results, we have recently tied up with a new agency which seems to be more competent than any we have had before. Time alone will tell. But, should they prove unsatisfactory, we shall continue to look. Of course, it costs money to do this, a great deal of it, but you don't get anything for nothing, and money invested in this way will pay large dividends.

What price should we charge? This is one of the toughest nuts to crack, because there are two ways of looking at it. In the first place, there is the old theory, "Charge all the traffic will bear." The other basis is, "Figure a price at which it is profitable to do work, and do not vary from this figure." Each of these methods has a bad angle to it. With the first one, how do you know what the traffic will bear? If your prices have been fixed on this method, it is quite possible that you could have charged half again as much as you did, had you had better salesmen or a more efficient sales program. You may have been losing money by

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selling goods at a lower price than necessary. The bad feature of the second policy is obvious. If in order to assure yourself a profit, your price is way out of line, no one will buy. However, I believe that this policy is the most workable. As soon as you find that people will not buy at your price, you must learn how to operate at a lower price and still leave a margin for profit. A thorough study of price involves a thorough study of cost, and here, I believe, is one of the weakest spots in our industry. For the most part, we are doing things the same way in which they have been done for many years. This is because we have not kept up-to-date in developing labor-saving equipment which would help our men to earn more without increasing the cost of our product. In addition to this, I think, for the most part, we have not made the effort we should to keep the bulk of our men busy the year around. Of course, everyone tries to keep the best men busy, but had we been able to whip the seasonal end of the business into shape long ago, by this time we should have reduced the turnover in our labor substantially. Obviously, a man who has been with you year in and year out becomes more efficient, and thereby can produce more work at a lower cost even though his wages are higher than a new man. It should be our aim to become more efficient through the use of labor-saving machinery and better management, so that we can pay higher wages, be able to reduce prices and still make a profit. Efficiency of management of labor offers tremendous opportunities for profit. Two years ago we tried an experiment which opened our eyes to these possibilities. We had an order for several thousand elms all of one size. We decided to try paying our men at a piecework rate. The basic pay was 40 cents per hour for a 9-hour day. We guaranteed to pay this no matter how many trees the man dug, but we considered twelve trees a proper day's work. Obviously, if a man dug substantially less than this, he was laid off. Those who dug more than twelve were given a bonus of 20 cents a tree. We were amazed to find that some of our men were earning 80 cents an hour on this basis, and that the trees they dug were costing us less than the trees

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which were dug by the slower workmen, and, incidentally, the quality of workmanship was slightly better. Since then, we have been trying to make a bonus arrangement for digging the general run of nursery stock, but so far we have not been very successful. Digging one type of material in one block of the nursery day after day is quite different from digging one or two of one variety and three or four of another located in different parts of the nursery. However, we are still working on it, and sometime hope to be able to raise the rates of all our men by having standards whereby we can eliminate the men who act as a drag on the whole organization. There is another reason for improving efficiency and trying to develop labor-saving machinery, and that is in order to be prepared for the time when unionization of the industry

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becomes more general. Only through efficiency can we afford to pay the higher wages that most unions call for, without seriously affecting the

prices of our product and thereby decreasing our volume. All industries are behind the times in the science of labor relations, and we as an industry would be smart to learn this science along with other industries rather than let them get ahead of us. I feel that during the next ten years there will be more advance in the personnel end of the business than in any other branch, and, incidentally, the proper handling of the labor relations problem will prove increasingly profitable.

All of us have made costly mistakes in the past, and with the present business conditions facing us, we are wondering what the future will bring. William Feather, in an article in the December issue of *American Business*, sizes things up very well: "The prudent business man, looking a year ahead at this time, might as well realize that he is in deep water and that he will have to swim, without a life preserver. He might as well start swimming now, determined to keep afloat, to do his job as well as he knows how, to put full enthusiasm and energy into his work, and to make as much money as he can. His profits, if any, will be the measure of his efficiency."

Our best bet for increasing our efficiency and making more profits is:

1. To learn, through the study of economics, how to foresee future trends—to some extent at least.
2. To learn how to prepare for bad business by hiring the best brains we can, to help us develop an aggressive sales policy.
3. To adjust our products to our sales, in order to grow what our customers want to buy rather than try to sell them what we want to grow.
4. To develop a labor program for training our men, letting them in on more of the problems which bother us, encouraging them to help us solve them and, thereby, raise their efficiency and loyalty.
5. To develop labor-saving machinery so that we shall be able to do what has already been done in the automobile industry, give higher wages to the men who work for us, make a better product, reduce prices but still make a profit.

Any of us who will attack these problems with intelligence and determination will make a profit in 1938.

## GROUND COVER PLANTS.

[Continued from page 4.]

not so attractive as many of the other evergreen ground covers.

*Teucrium Chamædrys*, *Chamædrys* germander: This low plant spreads rapidly, giving a bushy mass effect to a height of about ten inches. The plant is not entirely hardy, but even if it is cut to the ground each spring—and this may be the best treatment regardless of its hardiness—it develops rapidly maintaining a good cover. This is also a good flowering ground cover.

*Vaccinium pennsylvanicum*, low-bush blueberry: This low deciduous shrub, growing about ten inches tall, has done remarkably well in our tests. It may not be useful as a general ground cover plant, but it should be excellent as an undershrub. The greenish white flowers are attractive in April.

*Vaccinium Vitis-idaea minus*, little-leaf mountain cranberry: After I saw an excellent planting of this *vaccinium* at the Arnold Arboretum a few years ago it was hoped that it might do well in the midwest. Our trials, however, have not been satisfactory, many of the plants dying during the summer months. It is possible that better results would be secured if the plants were set close enough at the start completely to shade the ground. Cool soils are apparently required. As seen growing at the arboretum, plants formed dense mats, four to eight inches high. The leaves are small, dark, glossy green. Flowers are white in May and followed by red fruits in August.

*Veronica Teucrium (rupestris)*, rock speedwell: This plant develops rapidly and is in much the same category as *Sedum spurium*.

*Vinca minor*, common periwinkle: As a result of our tests, myrtle continues to be one of the best evergreen ground covers.

*Vinca minor* Bowles, Bowles periwinkle: As it appears in our tests this variety is lower in its habit of growth and does not grow quite so rapidly as the species. The plants seem somewhat more branching, have larger and brighter blue flowers and bloom more continuously.

*Zanthorhiza apiifolia*, yellowroot: This sparingly branched low shrub grows well, but does not form a thick enough cover to warrant its use as a general ground cover. It might be used in a limited way for covering large banks where a heavy cover is not necessary. The small brownish white flowers in drooping clusters are quite attractive in April.

## Conclusions.

In conclusion, the ground cover plants best suited for definite purposes, based on our tests, are as follows:

- (1) For covering large banks where a rank growth is desired, such as highway planting: *Evonymus radicans coloratus*, *Lonicera Henryi*, *Lonicera japonica Halliana*, *Rosa Max Graf* and *Rosa Wichuraiana*.
- (2) For covering large areas where an unrefined mass is desired: *Mahonia repens* and *Zanthorhiza apiifolia*.
- (3) For general ground cover use in landscape plantings: *Evonymus radicans*, *Evonymus radicans coloratus*, *Hedera Helix*, *Hedera Helix baltica*, *Pachysandra terminalis*, *Vinca minor* and *Vinca minor* Bowles.
- (4) For underplanting in wooded or partially shaded situations: *Evony-*

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mus obovatus, Mahonia repens and Vaccinium pennsylvanicum.

(5) For small areas where a low refined cover is desired: Ampelopsis tricuspidata Lowii, Arctostaphylos Uva-ursi, Evonymus radicans minimus, Gaultheria procumbens, Mitchellia repens and Pachistima Canbyi.

(6) For a variation in the planting some of the more herbaceous plants that may be satisfactory are: Phlox subulata, Sedum spurium, Teucrium Chamædrys and Veronica rupestris. The definite soil and climatic requirements of each plant should be kept in mind when it is used.

### GROWTH RATES OF TREES.

The comparative rate of growth of various species and varieties of trees is a matter of importance in landscaping, as well as in the nursery, and figures given in the December bulletin of popular information issued by the Morton Arboretum, Lisle, Ill., are of interest. The Morton Arboretum has for a number of years been making a periodical check on the growth of its test tree plots. The recent bulletin tabulates the amount of the average growth in the two years 1936 and 1937 and for the 2-year period 1934 and 1935, giving other data relative to the time of planting and size of the trees. Notes on weather conditions in the periods covered make possible allowance for their effect in the growth of the trees. Fifty-five species and varieties in twenty-three genera are covered in the tabulation.

### TREES FOR GREAT PLAINS.

Department of Agriculture experiments conducted for twenty years by the division of dry land agriculture at Mandan, N. D., show that at least seven broad-leaf tree species will live and grow on the great plains even during dry years. The seven hardy trees are Chinese elm, green ash, chokecherry, box elder, Siberian pea tree, buffalo berry and American plum. The seven recommended trees survived the 1915-34 period, of which 1917 to 1921 were the five driest consecutive years for the region on record, and apparently have survived the dry summer of 1936.

NUT trees perhaps have fewer parasites than any other fruit-bearing trees.

## ESPECIALLY ATTRACTIVE PRICES

On Carload Lots

In extra fine sweet cherry, apple, Bartlett pear, prune, plum, peach, apricot and almond.

Also extra fine Chinese Elm, Arizona Ash and California Black Walnut seedlings.

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Telegraph through Tracy, Calif.

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A complete line of  
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FAIRVIEW, OREGON

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A card will bring our list of items that will make you some money.

## MILTON NURSERY CO.

Milton, Oregon

"Pioneer Nursery of the Northwest"

Fruit, Shade, Flowering and Ornamental Trees, Fruit Tree and Chinese Elm Seedlings. Car lot advantages to all points east.

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## ORENCO NURSERY CO.

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Wholesale Growers

Fruit, Shade, Flowering Ornamental Trees, Fruit-tree Seedlings, Roses, Etc.

Very complete line of quality stock

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# Coming Events

## CONVENTION DATES.

January 4 to 6, Western Association of Nurserymen, Hotel Muehlebach, Kansas City, Mo.

January 5, Missouri State Nurserymen's Association, Hotel Muehlebach, Kansas City, Mo.

January 11 to 13, Illinois State Nurserymen's Association, Hotel La Salle, Chicago.

January 11, New York State Nurserymen's Association, Hotel Seneca, Rochester.

January 11, Massachusetts Nurserymen's Association, Hotel Statler, Boston.

January 13, Long Island Nurserymen's Association, Bethpage Country Club, Farmingdale, N. Y.

January 14, Oregon Association of Nurserymen, midwinter meeting, Multnomah hotel, Portland.

January 19 and 20, Oklahoma State Nurserymen's Association, Huckins hotel, Oklahoma City.

January 19 and 20, Iowa State Nurserymen's Association, Ames.

January 20 and 21, Ohio Nurserymen's Association, annual meeting, Deshler-Wallick hotel, Columbus.

January 25, North Carolina Nurserymen's Association, board room, North Carolina Department of Agriculture, Raleigh.

January 25 and 26, New Jersey Association of Nurserymen, annual winter meeting, Hotel Hildebrecht, Trenton.

January 25 and 26, New England Nurserymen's Association, annual meeting, Hotel Statler, Boston, Mass.

February 2 and 3, Michigan Association of Nurserymen, Olds hotel, Lansing.

## TO FORM EASTERN CHAPTER.

A group of members of the American Association of Nurserymen from New York, Pennsylvania and New Jersey will meet in parlor E of the Hotel New Yorker, New York city, January 6, for the purpose of forming an eastern chapter of the national organization. All interested members are cordially invited to attend. Fred D. Osman is acting as temporary secretary for the group.

## NEW JERSEY PROGRAM.

The annual convention of the New Jersey Association of Nurserymen will be held January 25 and 26 at the Hotel Hildebrecht, Trenton.

At the morning session, January 25, Colonel Edward Phillips will deliver his address as president, after which the other officers and the chairmen of committees will report: Legislative, William Flemer, Jr., chairman; interassociation relationship, Charles Hess, chairman; membership, L. C. Schubert, chairman.

At the afternoon session there will be a round-table discussion on nursery sales. William P. Howe will lead on "Roadside Stands"; B. R. Leach, on "Sales at the Nursery," and Robert P. Greene, on "Landscape Sales."

After a visit to the farm show late in the afternoon, the evening will be devoted to a banquet and entertainment.

The morning session, January 26, will continue the round-table discussion on

selling, L. C. Schubert discussing "New Material as an Aid in Making More Sales"; Fritz Hendrick, "Extending the Sales Season," and William Flemer, Jr., "Balancing the Inventory."

At the afternoon session, Lester C. Lovett will talk on "Labor and the Nursery Business." Dr. Richard P. White will discuss "Hormones and Their Relation to Rooting Cuttings, Transplanting and Root-pruning Equivalent." The session will conclude with the election of officers and other business.

## OKLAHOMA PROGRAM.

The seventeenth annual convention of the Oklahoma State Nurserymen's Association will be held at the Huckins hotel, Oklahoma City, January 19 and 20.

On the morning of the first day, after the opening ceremonies, V. E. Bryan will present his address as president and J. A. Maddox will report as secretary-treasurer.

In the afternoon, Dr. Fenton, entomologist at the Oklahoma A. & M. College, will talk on insect pests, and J. Frank Sneed will discuss the organization of a chapter under the new by-laws of the American Association of Nurserymen. Hill's Business University will conduct a school of salesmanship.

In the evening a banquet will be held, at which T. A. Milstead will be toastmaster and the guests of honor will be Joe C. Scott and family.

On the morning of January 20, Virgil McPhail, Austin, Tex., will talk on "The Texas Rose Situation." A discussion of new horticultural varieties will be led by C. E. Garee. Fungous diseases will be the subject of a talk by Dr. K. Star Chester, of the Oklahoma A. & M. College.

The final session in the afternoon will be devoted to business, including the reports of committees and the election of officers. Quarantines, legislation, the social security tax and the sales tax will be discussed at this session.

## ILLINOIS PROGRAM.

Always a favorite midwinter gathering place for the trade, Chicago will likely draw a larger attendance this month for the convention of the Illinois State Nurserymen's Association, at the Hotel La Salle, January 11 to 13, because of the list of prominent speakers on the program.

National affairs will be prominent in the discussion, because of the presence of Clarence O. Siebenthaler, who has headed the Washington contact committee since he retired as president of the American Association of Nurserymen last July, and of Richard P. White, the new executive secretary and Washington representative of the A. A. N.

Nurserymen's information on taxes will be increased by George Price Ellis, of Wolf & Co., one of the large firms of certified public accountants in the country. He is a recent past president of the American Society of Certified Public Accountants and also of the Executives' Club of Chicago, and he is at present vice-president of the Illinois chamber of commerce. After his

address, time will be afforded for plenty of questions.

The cultural side of the business will be given adequate attention in the illustrated address of August P. Beilmann on experiments in the feeding of shade trees at the Missouri Botanical Garden, and in the discussion of new or little known plants by John Van Gemmert, propagator at the Morton Arboretum, Lisle, Ill.

The sales angle will have attention in the address of Alfred C. Hottes, who stepped from the professorship of floriculture at Ohio State University to national activity as associate editor of "Better Homes and Gardens" and as a writer and lecturer on horticultural subjects.

The director of the Illinois department of agriculture, J. H. Lloyd, will be present in person to tell of the activities of the department in relation to nurserymen, aside from the work of nursery inspection and certification.

## GRAFTED JUNIPERS

We offer the following varieties for spring delivery from 2 1/4-in. pots, grafted on *Juniperus virginiana* understock.

*J. chinensis columnaris glauca*  
*J. chinensis columnaris viridis*  
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*J. chinensis Sargentii*  
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*J. squamata argentea*  
*J. squamata Meyer*  
*J. japonica aureo-variegata*  
*J. virginiana Burkill*  
*J. virginiana Canaertii*  
*J. virginiana elegantissima*  
*J. virginiana glauca*  
*J. virginiana globosa*  
*J. virginiana Keteleeri*  
*J. virginiana Kosteri*  
*J. virginiana Schottii*  
*J. virginiana pendula*  
*J. virginiana pyramidiformis*

Price \$25.00 per 100

## HESS' NURSERIES

Mountain View, New Jersey

## PEONIES for Spring Planting

Ask for Special Offer

## THE COTTAGE GARDENS

Lansing, Michigan

## WHOLESALE GROWERS

of a complete line of Nursery Stock including Fruit Tree Seedlings.

## Lake's Shenandoah Nurseries

Shenandoah, In.

## BOYD NURSERY CO.

We are located at the home of rare Mountain Trees, Shrubs and Hardy Ferns. Lining-out stock. Trees and Shrubs. Write for trade list

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**SHADE TREES**

	Per 10	Per 100
Ash, Am. White, 10 to 12 ft.	\$7.50	\$65.00
Ash, Am. White, 2 to 2 1/2-in. cal.	15.00	125.00
Catalpa Bungei, 5 to 6 ft.	7.50	65.00
Elm, American, 10 to 12 ft.	7.50	65.00
Elm, American, 1 1/2 to 2-in. cal.	9.00	80.00
Elm, American, 2 to 2 1/2-in. cal.	12.50	115.00
Flowering Crab, 3 to 4 ft.	4.00	....
(Evel, Floribunda, Hops, Sargentii)		
Japanese Cherry, 8 to 10 ft.	7.50	65.00
Japanese Cherry, 4 to 5 ft.	8.50	75.00
Jap. Weeping Cherry, 1-yr.		
5 to 6 ft.	13.50	125.00
Maple, Norway, 8 to 10 ft.	9.50	85.00
Maple, Norway, 10 to 12 ft.	11.00	100.00
Maple, Norway, 2 to 2 1/2-in. cal.	20.00	185.00
Oak Pin, 2 to 2 1/2-in. cal.	25.00	....
Oak Pin, 2 1/2 to 3-in. cal.	40.00	....
Plane, Oriental, 2 1/2 to 3-in. cal.	20.00	....
Poplar, Lombardy, 6 to 8 ft.	2.50	20.00
Poplar, Lombardy, 8 to 10 ft.	3.00	25.00
Poplar, Lombardy, 10 to 12 ft.	4.00	35.00

Write for prices on other varieties and sizes.

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**APPLE TREES**

We offer to the trade an extra-fine lot of 1-year Apple Trees; all grown from Whole Root Grafts. A complete list to select from. This stock is unusually vigorous and strong. Your customers will like these trees.

Send us your list of requirements for special fall booking prices.

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**LINING-OUT STOCK**

Complete list of deciduous lining-out stock this year.

Place your order now for Spring shipment, and avoid disappointment when wanted.

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Splendid Stock**

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**Ampelopsis Veitchii Forcing Roses  
Barberry Thunbergii**

And Complete Line of Nursery Stock

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Dept. A—Manchester, Conn.

**Canterbury Boxwood**

*Buxus suffruticosa* and *B. sempervirens*. Selected uniform plants; bushy and foliated to center; masses of fibrous roots. Finished specimens from 4 inches up, ready for quick shipment. Prices lower, plants larger. Ask for special list.

**CANTERBURY, Box A, Easton, Md.**

The program, which will be included in three afternoon sessions, is as follows:

**JANUARY 11, 1:30 P. M.**

President's address, by A. H. Hill, Dundee.  
Treasurer's report, by Arthur L. Palmgren, Glenview.

"Social Security and Sales Taxes as They Affect the Nursery Industry," by George P. Ellis, Chicago.

"The National Outlook," by Clarence O. Sieben-thaler, Dayton, O.

"The Washington Office of the A. A. N.," by Richard P. White.

**JANUARY 12, 1:30 P. M.**

"The Feeding and Care of Shade Trees," by August P. Beilmann, St. Louis, Mo.

"New and Outstanding Varieties of Plants for Illinois Conditions," by John Van Gemmert, Lisle.

**JANUARY 13, 12:15 P. M.**

Luncheon.  
"The Illinois Department of Agriculture and the Horticultural Industry," by J. H. Lloyd, Springfield.

"I Think I Know Your Customer," by Alfred C. Hottes, Des Moines, Ia.

Reports of standing committees: Legislative, Elmer L. Clavey, chairman; auditing, William B. Hagen, chairman; resolutions, William A. Beaudry, chairman; membership and publicity, L. L. Kunklein, chairman.

Unfinished business.

New business.

Election of officers.

**APPLY CALIFORNIA LAWS.**

The annual meeting of Southern California Industries, Inc., will be held January 13 at Symphony Hall, 232 South Hill street, Los Angeles. In addition to reports of the officers, there will be the announcements of the results of a recent election held by mail. The principal subjects to be taken up at the meeting will be the grades and standards bill, the cost survey and the unfair practices act. Under a plan of operation which is expected to be most efficient, each district represented in the organization will elect a vice-president, who will automatically become a member of the board of directors. J. Lee Hewitt, chief of the bureau of nursery service, will talk about the grades and standards law and the progress being made in its application.

Incident to the application for an injunction against Donald Caler, Los Angeles, the Third District Court of Appeals, sitting in Sacramento, rendered an opinion in regard to the unfair practices act as being unconstitutional. The case centered around sales below cost as a loss leader. The consensus among the organization's legal advisors, according to Lou Johnson, secretary of the Horticultural Industries, Inc., is that the Supreme Court will uphold the law. The case is based on the 1935 act—not on the present act as amended by the 1937 legislature. It is said that the decision will be appealed to the Supreme Court at once. The secretary advises that any variation from the present set-up may be a violation of the 1937 law and that care should be taken to comply with its regulations in every respect.

**LAKE COUNTY MEETING.**

The Lake County Nurserymen's Association will hold its winter meeting January 5 at the Parnly hotel, Painesville, O. President Paul J. Schumaker says there will be many subjects of interest discussed, particularly a nursery school to be held for three days at Painesville.

SIMON PETERSON, formerly associated with the national park service at Sequoia National park in California, recently started a nursery at Three Rivers, Cal. He will specialize in native plants.

20,000 **ELMS**, American, Vase, Moline, up to 4 inches, transplanted.

4,000 **MAPLE**, Norway, up to 2 1/2 inches, transplanted.

2,000 **WILLOW**, Thurlow, 8 to 10 ft. and 10 to 12 ft.

10,000 **SPIRÆA**, Vanhouttei, 3 to 4 ft. and 4 to 5 ft.

Send for list on many other items.

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Largest Nursery in Indiana.

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SEEDLINGS**

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6000, 3 to 6 ins. 8000, 6 to 9 ins.

25,000 *Ampelopsis Veitchii*, 1-year seedlings2,000 *Ampelopsis Veitchii*, 2-year transplants*Asparagus*, Pedigreed Washington, 2-year*Hydrangea* Pee Gee, 3 to 4 ft. and 4 to 5 ft.**T. B. WEST & SON**

Maple Bend Nurseries

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Seedlings - Rooted Cuttings

Evergreen and Deciduous

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Complete assortment of lining-out sizes

Also larger grades for landscaping

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EVERGREEN SPECIALISTS

Largest Growers in America

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DUNDEE, ILLINOIS

## OHIO SHORT COURSE PROGRAM.

The Ohio short course for nurserymen, landscape gardeners and arborists will be held at the Horticulture building on the Ohio State University campus, Columbus, January 18 and 19. The program in detail follows:

**TUESDAY, JANUARY 18, 10 A. M.**  
 "Discussion of Experimental Work During 1937," by Dr. L. C. Chadwick, of Ohio State University, Columbus.  
 "Growth-promoting Substances as an Aid in Rooting Cuttings," by Prof. Alex Laurie, of the university.

**JANUARY 18, 1 P. M.**  
 Symposium: Shade Trees—Discussion leader, Prof. Alex Laurie.  
 Display: Tree tools and equipment.  
 "Shade tree troubles."  
 "Selection of Trees for Street and Lawn Planting," by Dr. L. C. Chadwick.  
 "Lightning Protection," by A. Robert Thompson, of the national park service, Washington, D. C.  
 "Methods and Practices of Tree Moving," by M. G. Coplen, of the Rock Creek Nursery, Rockville, Md., and Charles F. Irish, of the Charles F. Irish Co., Cleveland, O.  
 "Wound Dressings," by Paul E. Tilford, of the Ohio agricultural experiment station, Wooster, O.  
 "Bracing Materials and Practices," by A. Robert Thompson.  
 "Other Problems of Tree Maintenance," by Charles F. Irish.

**JANUARY 18, 6:30 P. M.**  
 Dinner at the Faculty Club, Administration building.  
 Master of ceremonies, J. H. Gourley, head of the horticulture department, Ohio State University.  
 "Rare Woody Ornamental Plant Materials," by Henry J. Hohman, of the Kingsville Nurseries, Kingsville, Md.  
 "New and Desirable Herbaceous Perennials" (illustrated), by Eugene S. Boerner, of the Jackson & Perkins Co., Newark, N. Y.

**WEDNESDAY, JANUARY 19, 8 A. M.**  
 Symposium: Junipers—Discussion leader, Dr. L. C. Chadwick.  
 Propagation:  
 "Seeds," by Harold C. Esper, of the department of buildings and grounds at the university, and Tom Kyle, of the Bohlender Nurseries Co., Tippecanoe City, O.  
 "Cuttings," by Dr. L. C. Chadwick.  
 "Grafts," by Howard Burton, of the Hilltop Nurseries, Casetown, O.  
 "Specimen Production," by D. B. Cole, of the Cole Nursery Co., Painesville, O., and George Kern, of the Wyoming Nurseries, Wyoming, O.  
 "Growers' Experiences."  
 "Choice of Varieties," by Thomas B. Medlyn, of the W. A. Natrop Co., Cincinnati, O.; Mark Aukeman, of the Hollandia Gardens, South Vienna, O., and D. B. Cole.  
 "Use of Junipers in Landscape Plantings" (illustrated), by Victor H. Ries, of the university.

**JANUARY 19, 1 P. M.**  
 Symposium: Production, Planting and Maintenance Costs—Discussion leader, Victor H. Ries.  
 "Cost Systems and Figures," by Russell M. Bettes, of the Princeton Nurseries, Princeton, N. J.  
 "Highway Planting Costs," by Harry S. Day, of the Fremont Nursery, Fremont, O.  
 "Landscape Maintenance," by Harvey Bicknell, of the Bicknell Horticultural Service, Shaker Heights, O.

L. C. C.

## BOSTICK RESIGNS.

J. A. Bostick, Tyler, Tex., has submitted his resignation as president of the Southwestern Association of Nurserymen to the executive committee and suggested that the vice-president call a meeting of the committee to choose his successor, for which position he recommended W. E. Rey, Oklahoma City, now vice-president.

Mr. Bostick, in sending his resignation to the members of the executive committee, stated that it would be impossible for him to give the Southwestern Association of Nurserymen as much time as is needed for the rebuilding of the organization, because he was drafted as president to succeed himself for another year at the annual meeting of the East Texas Rose Growers' Association last July, he is a director and member of the executive committee of the Texas Rose Festival Association and has other civic work and his own business to look after.

He expressed the opinion that the future of the Southwestern association depends upon obtaining a representative

membership of nurserymen in the other states besides Texas included in the region the organization covers.

## "THE GARDEN IN COLOR."

"The Garden in Color," by Louise Beebe Wilder, brings together an interesting variety of flower subjects in color plates and comments combining historical and cultural data regarding them that makes enjoyable reading. It is a pretentious volume, with 327 pages 7½x11 inches and 320 color reproductions. If to some these plates do not seem to be faithful to the originals in color, they nevertheless should give considerable assistance to the less experienced in planning gardens and visualizing plant combinations. The Macmillan Co. is the publisher.

Following a style that is out of the ordinary, the book presents separate groups of text and illustration pages, the text preceding the plates to which it relates and to which it is keyed by numbers for the sake of convenience. The material is also arranged to follow the sequence of the seasons, being in four parts, starting with "Spring." The seasonal topics are thus reviewed separately without regard for alphabetical order. An index, however, provides ready reference to all plates and the text relating to each.

About 500 different varieties of flowers suitable for garden use are discussed and portrayed. Many but not all the familiar subjects appear. Also, some little-known plants are given place. Sometimes the blooms are shown alone, sometimes in a garden planting and sometimes as cut flowers in a vase. Gardens of different types are represented among the illustrations, and in each there are suggestions by which the gardener can profit. Numer-

ous rock garden scenes are interesting. For some plant families, the diversity of forms and varieties included is shown. In the section "Winter" the text covers both outdoor material and that which can be flowered in the home or under glass.

The text, which is in the form of short reviews of each illustration, is written in a pleasing style. Much of the cultural information is based on the author's own wide experience, but there are also numerous quotations from other authorities. The usual practical points are covered, including planting methods, growing practices, cutting methods, propagation and varieties.

Cloth-bound, this handsome volume is offered at the publisher's price, \$7.50 per copy, postpaid.

## THE SEASON'S GREETINGS.

The Benjamin Chase Co., Derry, N. H., sends the season's greetings to its friends on a plant label accompanying a useful Redipoint pencil.

A desk calendar from the Milton Nursery Co., Milton, Ore., brings greetings for 1938, the sixtieth anniversary of the business, conducted as A. Miller & Sons up to 1908.

Some big Delicious apples from Stark Bros. Nurseries & Orchards Co., Louisiana, Mo., were an appropriate token.

A tray of bulbs in paper packages prepared for winter blooming will prolong the greetings of the Gardner Nursery Co., Osage, Ia.

Two new nurseries were opened recently at Mesa, Ariz. Hall, Riddle & Chambers established a general nursery on West Main street, with H. L. Hall as manager. McKay & McKay opened a citrus nursery on West Apache trail.



## DREER'S Wholesale Catalogue for 1938

is now in the mails. If you are not already on our mailing list write today for a copy of this interesting, helpful book of

### Dreer Quality Seeds, Plants, Bulbs

It will be mailed free to anyone in the trade.

HENRY A. DREER

Philadelphia, Pa.

## DUNHAM'S GRAND MERE NURSERIES

Baroda, Michigan

Raspberries	2-yr. No. 1	1-yr. No. 1	1-yr. No. 2
Indian Summer (Red).....	\$45.00 per 1000	\$35.00 per 1000	
Taylor (Red).....	35.00 per 1000	25.00 per 1000	\$15.00 per 1000
Sodus (Purple tips).....		25.00 per 1000	
Marion (Purple tips).....		5.00 per 100	

Offer these to your trade

Special prices on large quantities

Wanted lining-out stock

## PEACH TREES

### Thrifty June-budded Stock

We offer to the trade an up-to-date list of the leading varieties to select from. All of these trees are grown on our farms in Maryland. They have shaped up nicely and have a well balanced fibrous root system—the kind of stock that will please you and your customers.

We invite your inquiry and offer special prices on early bookings.

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## STRAWBERRIES

### Standard and Everbearing



From our large plantings, we are in position to fill your orders direct. Let us quote you.

We offer 50,000 Latham and 25,000 St. Regis Raspberries at a low price for immediate sale.

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## SMALL FRUIT PLANTS

Evergreens — Shrubs  
Lining-out Stock  
Send for Complete Trade List

**SCARFF'S NURSERIES**

New Carlisle, O.

**LATHAM RASPBERRIES**  
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**ANDREWS NURSERY**  
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**Wholesale Growers of**  
Grapevines, Currants,  
Gooseberries, Blackberries  
and Raspberries

Let us quote on your requirements

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69 Orchard St. Fredonia, N. Y.

## STRAWBERRY PLANTS

No better plants grown than Hill's high-grade, true-to-name, well graded, new and standard varieties. A trial order is convincing. Let us quote you on your requirements.

**HILL'S PLANT FARMS**  
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## CONCORD GRAPEVINES

Select, strong, well rooted  
\$3.00 per 100; \$25.00 per 1000

**STOVALL NURSERY**  
LEAKESVILLE, MISS.

### ABOUT NEW ROSES.

Another handsome booklet on roses, profusely illustrated in colors, has been issued by Jackson & Perkins Co., Newark, N. Y. As the company operates exclusively at wholesale and makes no sales direct to the public, the booklet is of prime assistance to nurserymen, florists, seedsmen and dealers offering J. & P. roses. Its instructions on how to plant roses, where to set climbers and how to lay out beds are of practical value to the amateur.

The booklet was written by Dr. J. H. Nicolas and was ready for the printer when he died, September 25, 1937. The book was sent to press just as he had prepared it, with a portrait of him at hybridizing work last summer and a tribute to the work he performed in the eight years he was in charge of J. & P. research work with roses.

The world's production of new roses in the past four years reached the stupendous number of nearly 800 varieties, says the foreword, and most of them have been tested in J. & P. trial gardens and fields. From that large group were picked thirty-five roses from eight countries, and it is interesting to note that ten are the originations of Dr. Nicolas. Twenty-six of the varieties are illustrated in large color plates.

Special attention is called to the floribunda type of roses, formerly misclassified as hybrid teas or hybrid polyanthas. Derived from various Arctic species or sources, the varieties are quite hardy, and they have been bred for mass planting. Of the six presented, four were originations of Dr. Nicolas.

### SAN FRANCISCO, CAL.

The Central California Nurserymen's Association held its annual Christmas party at the California hotel, Oakland, December 16. James R. Crombie was master of ceremonies and Ray D. Hartman, Santa Claus. Mrs. Crombie and Mrs. Sandkuhle sang as part of the program for the evening.

Commenting on the campaign that the city is carrying on for a clean-up in connection with the Golden Gate International Exposition, the San Francisco Chronicle says: "The tree-planting campaign is getting organized and the actual planting will soon be under way. This is a phase of the clean-up determination that has long-time value. At the same time, it should immediately help the general clean-up. Who will want to plant a tree in front of a rubbish-covered lot? So tree planting and clean-up go together."

### MINNESOTA NOTES.

At the recent annual meeting of the Twin City Nurserymen's Association, J. Juhl, of the Hoyt Nursery, St. Paul, Minn., was elected president; Rudolph Ruedlinger, of the Ruedlinger Nursery, Minneapolis, vice-president, and Vincent Bailey, of the J. V. Bailey Nursery, Newport, secretary-treasurer. After the election, a closed meeting was held to discuss prices and other matters relating to spring business.

Mr. and Mrs. John Hawkins, of the Rose Hill Nursery, St. Paul, left for a short tour of the east to visit a son and daughter before going on to Florida, where they will remain for a few weeks with their son Roy, who has been residing there for some time because of ill health.

## BEAUTY BUSH

(Kolkwitzia Amabilis)

We offer fine hardwood cuttings made of prime wood. Handmade, 8 inches long. 50c per 100, \$4.00 per 1000. Shipment now or later.

### FINE BENCH GRAFTS for Lining out

**Flowering Crab**—on whole roots. **Niedzwetzkyana**, or Russian Red-Vein. Hardy and beautiful, red flowers, foliage and fruit, purple branches.

**Prunus Newport**—on americana plum. Fine red foliage all summer, pink flowers in spring, showy and very hardy.

**French Lilacs**—on whole privet roots. **Charles X.**, fine clusters of reddish lilac. **Ludwig Spireth**, dark purple red; fine. **Mme. Abel Chatenay**, double white. **Mme. Le Graye**, large, single white. **Red Persian**, select red-flowering; very fine.

All grafts \$5.00 per 100, \$48.00 per 1000. Send for complete list of lining-out stock. **Barberry**, **Clematis**, **Spiraea**, **Hydrangea**, **Viburnum**, etc.

**HARMON NURSERY** Prospect, O.

## PEACH PITS

Our Pits Compare Favorably  
With the Best

**HOGANSVILLE NURSERIES**  
HOGANSVILLE, GEORGIA

## VIRGINIA CRAB SCIONS

100 for \$3.00 — Standard

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AMES, IA.

## Hall's Japanese Honeysuckle

Large stock for lining out  
Send want list for prices

**Burkman's Nursery**  
Roscoe, Ill.

## At Wholesale to Nurserymen

Lining-out seedlings, many varieties.  
Hall's Japanese Honeysuckle, transplanted;  
also liners.

Tree and Shrub Seeds.  
**Calycanthus**, Sweet Shrub; **Redbud**, American  
Beech, **Butternut**, **Shallbark** Hickory Nuts.  
Write us your wants.

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For Seventy-four years  
growers of Quality Evergreens  
Lining-out Stock a Specialty

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Evergreen Seedlings, Transplants,  
Maples, Nut and Apple Trees.

Write for price list.

Special reduced prices.

**MATHEWS EGGERT NURSERY**  
North Muskegon, Michigan

**SHADE TREE CONFERENCE PLANS.**

**At St. Louis August 31 to September 2.**

The fourteenth National Shade Tree Conference, which will be held at St. Louis, Mo., August 31 to September 2, 1938, got off with a good start when the first organization meeting was held at the Coronado hotel, St. Louis, December 4. Those in attendance included Prof. Karl Dressel, president; Dr. L. C. Chadwick, secretary-treasurer; Vance I. Shield, local chairman, and A. P. Beilmann, S. A. Burhenne, C. L. Dinsmore, C. W. Fullgraff, Kirk L. Keller, George H. Pring, E. C. Rea and Will A. Weber.

The meeting was called to order by President Dressel, of Michigan State College, East Lansing. Remarks were made by Dr. L. C. Chadwick, of Ohio State University, Columbus, concerning the necessity of coöperation and the hard work ahead for everyone if the conference is to be a success. Mr. Shield spoke of the prospects as he saw them. If all the committees can gain the enthusiasm displayed by Mr. Shield, the fourteenth conference is assured of success.

Mr. Hatfield pledged the support of the convention bureau at St. Louis in all matters of publicity and for clerical services necessary.

**Local Committees.**

The group got down to serious business with the appointment of local committees. These are as follows: Chairman local committee—Vance I. Shield, Box B, Clayton, Mo.; field demonstration—Kirk L. Keller, Creve Coeur, Mo.; E. C. Rea, St. Louis, and C. W. Fullgraff, Clayton, Mo.; trade exhibits—E. C. Rea, Kirk L. Keller and C. W. Fullgraff; educational exhibits—A. P. Beilmann and George H. Pring, both of the Missouri Botanical Garden, St. Louis; publicity—George H. Pring, A. P. Beilmann and Will A. Weber, of the A. F. Weber & Sons Nursery Co., Affton; ladies' program—J. F. Allen, of the Davey Tree Co., Clayton; and C. L. Dinsmore, St. Louis; transportation—S. A. Burhenne, St. Louis, and J. F. Allen; banquet and entertainment—Vance I. Shield and J. P. Allen, and attendance—Will A. Weber and Vance I. Shield.

**Plan Wide Publicity.**

The problem of publicity was discussed at some length. The conference will be publicized through such agencies as organizations of landscape architects, nursery associations, state forestry groups, county and municipal park officials, Missouri State Horticultural Society, trade salesmen and others. It is expected that widely publicizing the conference throughout the midwest will result in the largest group ever to attend the conference.

A final decision was made in selecting the Coronado hotel as the headquarters for the fourteenth conference, and a careful study of the layout was made to determine the best arrangement of booths for the trade exhibits. It is felt by the committee that the booth arrangement will be superior to that existing at many of the past conferences. Educational exhibits will be located conveniently for the members of the conference, as well as for other guests at the hotel.

The latter part of the afternoon and evening were spent discussing an operating budget and tentative program. All

in all, it was a most successful first meeting, and it may be assured that the fourteenth conference will have some innovations and will be one that will be remembered.

L. C. C.

**NEBRASKA ELECTION.**

Albert Williamson, York, Neb., was elected president of the Nebraska Nurserymen's Association at a meeting of the organization early in December at the Cornhusker hotel, Lincoln. Other officers chosen were Ralph Weir, Fremont, vice-president, and Ernest Herminghaus, Omaha, secretary-treasurer.

After the business meeting, Dr. Nels A. Bengston, of the geography department of the University of Nebraska, Lincoln, lectured on weather cycles observed in Nebraska in the past seventy-five years.

**CUMBERLAND BUYS FARM.**

The Cumberland Valley Nurseries, Inc., McMinnville, Tenn., announces the purchase of a 97-acre farm, about one mile from the corporate limits of McMinnville. This land will be used as a nursery farm and will be improved during 1938 with that purpose in mind. It is planned to build a modern packing house and storage building on this farm in the near future.

Being located on U. S. highway 70, having one-half mile frontage on that highway and being near a freight depot, it will be ideally placed for a good showing of stock to the traveling public and for convenience in shipping and receiving stock.

The offices of the company have been in Legal Row, McMinnville, since September, 1937, and will be retained there indefinitely.

It is the intention of the company to grow a general line of nursery stock, but to specialize, as heretofore, in the production of fruit trees.

Business for the year 1937 has been quite satisfactory, and 1938 is looked forward to with confidence, states J. R.

Bragg, president. W. R. Bragg is vice-president and Clyde Potter is secretary and treasurer of the company.

**STRAWBERRY PLANT STORAGE.**

T. L. Aamodt, assistant state entomologist of Minnesota, has issued a brief report on fall digging and winter storage of strawberry plants as practiced by many of the larger nursery fruit growers in Minnesota.

Research work began in 1930, when 10,000 fall-dug plants were stored. Some of them were in bunches of twenty-five or fifty, while others were laid on the ground on the cellar floor. The roots of some were muddled; others were covered with layers of straw and shingle tow at depths varying from three to twelve inches. The temperature of the cellar varied from 20 to 40 degrees Fahrenheit. Above 30 degrees there is danger of too much growth, Mr. Aamodt reports. After being planted in the spring, ninety-five per cent of the plants were in perfect condition, while the outdoor plants treated in the usual manner showed a mortality of forty-five per cent due to winter injury. Later experiments have shown similar results.

The advantages obtained by the practice are important. Nurserymen can receive orders at any time and be certain of having perfect material to fill the orders. Also, losses in yields are decreased by winter storage. Among the more important disadvantages are the variability of fall freezing dates and the uncertainty about what varieties are preferred in states where northern-grown stock is wanted. It is also admitted that spring-dug plants, having had an extra period of root development in the fall, have a better appearance, but as the crown and roots are the most important features, the foliage appearance is not of so much consequence.

Several of the larger growers are going ahead with the newer practice, claiming that, all in all, stored plants have a distinct advantage.

## WRITE FOR 10-DAY TRIAL OFFER on this High Pressure PARAGON SPRAYER



Send prices and details as per advertisement in American Nurseryman for January 1.

**TEST** it for yourself. Compare results with what you have been getting from your present sprayer. Use any spray solution or cold water paint. Spray your nursery stock, whitewash your greenhouses, barns and tool sheds, **inside and out.** Note how easily this **Paragon** delivers powerful uniform pressure at the nozzle with little effort at the pump handle. Passes through narrowest aisles without jamming at corners. Automatic agitator prevents solution from settling. We guarantee it **never to clog** while in use. Ten days trial costs you nothing if not satisfied. If your dealer does not sell the Paragon, mail the coupon today.



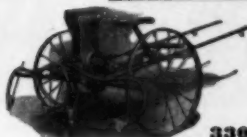
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## MESSINGER



303



330



350



332

Dusters 8 Sizes, 80 Models — Corn Shellers 3 Sizes — Threshers 4 sizes

MESSINGER MFG. CO., TATAMY, PA., U. S. A. ESTABLISHED 1857

## OBITUARY.

## P. A. Glenn.

Pressley Adams Glenn, age 70, who served as chief plant inspector for the bureau of plant industry of the state of Illinois from 1917 until 1935, when he retired because of ill health, died the evening of December 9 at the home of his son, H. Martin Glenn, Ellinwood, Kan. He had been in failing health for a number of years, but it is understood his final illness lasted only three days. He was buried in Highland, Kan., December 12.

Born July 9, 1867, at Westmoreland, Pa., Mr. Glenn received a bachelor's degree from Campbell College, Holton, Kan., in 1892, a similar degree from the University of Kansas, Lawrence, in 1898 and a master's degree from Highland College, Highland, Kan., in 1901. He served as superintendent of schools at Nortonville, Kan., from 1893 to 1897, was chairman of the mathematics and science department at Highland College from 1898 to 1907 and assistant professor of entomology at the University of Kansas from 1907 to 1911, when he became chief horticultural inspector, office of the state entomologist, University of Illinois, Urbana, serving until 1917, when he was made chief inspector.

Besides holding membership in scientific organizations, Mr. Glenn was an honorary member of the Illinois State Nurserymen's Association. His services and friendship were recognized by the nurserymen of the state, while his work in economic entomology was known still more widely. One of his most valuable studies was that of the relationship of humidity and temperature to the rate of growth of the codling moth, the results of which enabled nurserymen and apple growers to predict accurately the dates when the various generations of the moth hatched and set their spray schedules most effectively. During his quarter century in office, administrations changed without politics affecting the department under his capable direction.

Several years ago Mr. Glenn was run down by an automobile on a snowy street in Urbana. Both legs were broken, a shoulder blade was fractured, his jaw was dislocated and two bones in a hand and several ribs were crushed. Mr. Glenn recovered and returned to his duties, but his health was impaired and increasing physical infirmities led to his resignation in 1936.

Mr. Glenn was the author of a number of publications, including "The Influence of Climatic Conditions on the Green Bug and Its Principal Parasite," "Investigations into the Question of Practicability of the Artificial Use of the White Fungus Disease in Combating Chinch Bugs" and "Life and History of Codling Moth Larvae."

He married Zella Gertrude Martin August 20, 1895. She died December 21, 1918. Besides his son, Mr. Glenn leaves a daughter, Miss Roberta Glenn, Jackson, Mich., and three grandchildren. He was an active member of the First Presbyterian church in Urbana, Ill., for many years.

## CORRECTION.

I am in receipt of your December 15 issue and note the obituary of my husband, B. A. Mitchell. I appreciate the space given the article and photograph, all of which is very fine. There is just one misstatement, however, and of course that is no fault of yours, but rather of the one who furnished the information. That is the statement which reads: "Mr. Mitchell was employed by the Oregon Nursery Co. for many years." The fact is Mr. Mitchell was one of the leading stockholders in that company and its vice-president for many years before founding his own company, Oreno Nursery Co.

Yours is a very excellent magazine, and Mr. Mitchell always enjoyed reading it from cover to cover, each copy as it came to the office.

Thanking you for this consideration and assuring you that I am not writing in criticism, but merely as correction, I am, with best wishes,

Mrs. B. A. Mitchell.

## REVOLITE NAME CHANGED.

The Revolite Corp., New Brunswick, N. J., announces that beginning January 1, 1938, a change of name takes

## CLASSIFIED ADVERTISING

**Peonies:** Tree and Herbaceous, best varieties. **Oberlin Peony Gardens, Sinking Springs, Pa.**

**Forest tree and ornamental shrub seeds for sale.** **Home Nursery, Liberal, Mo.**

**Osage Orange Hedge Seed (Maclura Aurantiaca), my specialty. Write for circular.** **Ray Wickliffe, Seneca, Kan.**

**Peach Seed, 88 bu. screened, Tennessee natural, running 1000 seeds to the bu. Write for prices.** **Tennessee Nursery Co., Box 1, Cleveland, Tenn.**

**Azalea Liners.** We will have approximately fifty thousand Azalea liners for February-March delivery. Place your order now. **Florida Nursery & Landscape Co., Leesburg, Fla.**

**Chinese Elm Trees (Ulmus Pumila).** Limited supply. Single stem, transplanted. 4 to 5 ft. \$20.00 per 100 6 to 7 ft. 25.00 per 100

**Ulrich Nursery, Roswell, N. M.**

**Box 158.**

**Free Valuable Garden Booklet.** Written by successful farmer with 100 acres in Berries, Rhubarb, Asparagus, Artichokes. Not just a catalogue—pictures and describes money-making new varieties for market growers; best varieties for home garden. Also gives careful instruction on planting and growing with helpful hints on marketing. Write for your copy now, mentioning if for commercial or home use.

**Knott's Berry Place, Buena Park, Calif.**

effect, and it will be known as Industrial Tape Corp. The products of the Industrial Tape Corp. will be identical with those manufactured heretofore, including nurseryman's tape, a safeguard against all parasitic infection, but harmless to plant tissue, and special adhesive tapes for every industrial purpose.

## CORRECTS CATALOGUE.

Representations that they grow or propagate stock sold by them are to be discontinued by Earl E. May and the Earl E. May Seed Co., Shenandoah, Ia., under an order to cease and desist entered by the Federal Trade Commission. Mr. May is the principal stockholder and directs the activities of the company.

The order also directs the respondents to cease representing that they own, operate or control lands, farms or property on which nursery stock is grown for sale, unless and until such is the fact.

In their 1937 catalogue, according to the findings, the respondents embodied many changes intended to correct the objectionable advertising matter contained in their 1936 catalogues, according to the F. T. C. statement.

## SITUATION WANTED

Landscape architect and salesman, also capable retail nursery manager, desires connection with a high-class nursery. Capable of designing, estimating and selling landscape developments of any size. Also capable of managing a retail nursery. College man with best of references. Sample plans and interview on request. Available February 1. Address No. 79, c/o American Nurseryman, 508 S. Dearborn St., Chicago, Ill.

## HELP WANTED

Nurseryman or landscape man experienced in roadside sales for cash-carry department of Chicago district nursery. Excellent future for right man. Address No. 78, c/o American Nurseryman, 508 S. Dearborn St., Chicago, Ill.

## HELP WANTED

Reliable single man, experienced in nursery, greenhouse, propagating and landscaping. Must be able to handle men, meet public and be American citizen.

Address No. 73, c/o American Nurseryman, 508 S. Dearborn St., Chicago, Ill.

## FOR SALE OR EXCHANGE

Two nearly new 1/2-inch steel cables for tree digging, each 600 feet long. Want fruit or evergreen trees.

**PFUND BELL NURSERY CO.,** Lake St., Elmhurst, Ill.

**"Worth Many Times  
the Price of  
the Magazine!"**

That's what several subscribers have said about the 6-page table on Seed Stratification Practices in The American Nurseryman.

So many requests for extra copies have come that the four articles by L. C. Chadwick on

**Improved Practices  
in Propagation by Seed**

have been reprinted in booklet form, at 25 cents per copy.

Send your order now.

Valuable articles of this type constantly appear in The American Nurseryman. Every grower of, and dealer in, outdoor stock should read it regularly.

Published twice a month

Subscription, \$1.00 per year

**AMERICAN NURSERYMAN**

508 S. Dearborn St. Chicago, Ill.

**STOCK WANTED**

30,000 to 50,000 *Syringa Vulgaris*, blue, lining-out stock, 6 to 12 and 12 to 18 inches. Cash.

**C. J. Van Bourgondien**  
Babylon, N. Y.

**LOMBARDY POPLAR** — 5 to 6, 6 to 8, 8 to 10 ft.

**HARDWOOD CUTTINGS**—Persian Lilac, *Lonicera Morrowii*, *Lonicera tatarica*, *Forsythia Fortunei*, *Cornus sibirica*, *Spiraea Vanhouttei*, *Philadelphus coronarius*, *Tamarix africana*, Lombardy poplar and many other varieties.

We have a large supply of exceptionally fine stock and will quote very low prices on any cuttings or trees you may need.

**BYRD NURSERIES, INC.**  
6901 Dodge St. Omaha, Neb.

**HERBS**

Pot.-grown plants; over a hundred varieties. Dried Herbs for Flavoring and Fragrance. Other plants of unusual character and with the charm of old-time gardens.

Write for Catalogue

**Weathered Oak Herb Farm, Inc.**  
BRADLEY HILLS, BETHESDA, MARYLAND

**CLARK GARDNER  
NURSERIES**

Osage, Iowa

Originators of patented **SEMI-POTTED PLANT AND BULB PACKAGE** for over-counter trade. Has **WATERING TUBE** and other unique features.

**Asparagus Roots**

We offer to the trade one of the largest plantings of 1 and 2-year roots in the east. Write us for prices.

**E. W. TOWNSEND SONS NURSERIES**  
Salisbury, Maryland

**INDEX TO ADVERTISERS**

American Florist Supply Co.	28	Kirkman Nurseries	19
Andrews Nursery	23	Knott's Berry Place	25
Ariens Co.	27	Leonard & Sons, A. M.	28
Bean Mfg. Co., John	28	Loewith, Inc., Julius	27
Bobbink & Atkins	21	Lovett, Lester C.	21
Boyd Nursery Co.	20	Mathews Eggert Nursery	23
Burkman's Nursery	23	McGill & Son, A.	19
Burr & Co., C. R.	21	Meehan Co., Thomas B.	21
Byrd Nurseries, Inc.	26	Messinger Mfg. Co.	25
Campbell-Hausfeld Co.	24	Milton Nursery Co.	19
Canterbury	21	Mount Arbor Nurseries	14
Carpenter & Co., Geo. B.	27	Oberlin Peony Gardens	25
Chase Co., Benjamin	27	Oreco Nursery Co.	19
Cloverset Flower Farm	28	Pacific Coast Nursery	19
Cottage Gardens	20	Peterson & Dering, Inc.	19
Dixie Rose Nursery	19	Portland Wholesale Nursery Co.	19
Dreer, Henry A.	22	Prairie States Seed Co.	27
Dunham's Grand Mere Nurseries	22	Princeton Nurseries	21
Evergreen Nursery Co.	23	Process Color Printing Co.	28
Florida Nursery & Landscape Co.	25	Richard, Jr., Frank M.	27
Forest Nursery Co.	17	Scarff's Nurseries	23
Foster Nursery Co.	23	Shamburger Nursery, Carl	19
Garden Shop, Inc.	27	Shenandoah Nurseries	20
Gardner Nurseries, Clark	26	Stahelin's Nursery	23
Harmon Nursery	23	Storrs & Harrison Co.	15
Herbst Bros.	28	Stovall Nursery	23
Hess' Nurseries	20	Tarlton Nurseries	23
Hill Nursery Co., D.	21-27	Tennessee Nursery Co.	25
Hill's Plant Farms	23	Townsend Sons Nurseries, E. W.	19-21-23-26
Hinsdale Nurseries, Inc.	27	Ullrich Nursery	25
Hobbs & Sons, C. M.	21	Van Bourgondien, C. J.	26
Hogansville Nurseries	23	Waynesboro Nurseries, Inc.	21
Home Nursery	25	Weathered Oak Herb Farm	26
Howard Rose Co.	18	West & Son, T. B.	21
Jackson & Perkins Co.	16	Wickliffe, Ray	25
Jensen's Nursery	23	Wilson & Co., Inc., C. E.	21
Jewell Nursery Co.	19	Woodburn Nurseries	16

**Convention Time!**

Nurserymen in no less than twenty states will hold their association conventions during January and February.

Reports of these meetings will form an interesting and important part of the coming issues of the American Nurseryman—January 15 and February 1 and 15.

Your advertisements in these issues will have particular attention and be especially timely.

Send your order and copy now for these issues. Forms close five days before the date of issue.

## HILL'S BOOK OF EVERGREENS

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EVERGREENS

### New!

See this beautifully-illustrated new book, answering every question about Evergreens. Produced by America's leading

Evergreen Nursery with a background of 80 years' experience with Evergreens. A cloth bound book, 7x9 1/2", containing 320 pages. There are 50 chapters, including complete information on uses, descriptions, propagation, historical and cultural information pertaining to Evergreens. 360 illustrations, 45 in full color. Price \$1.50, postpaid, anywhere in the United States. Sent with full privilege of approval.

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Box 305 DUNDEE, ILLINOIS  
*Evergreen Specialists America's Largest Growers*

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### Immediate Delivery

Black Locust Seed  
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For January-February-March Delivery  
Genuine French Crab Apple Seed  
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120 East 16th St. New York, N. Y.

## RECLEANED RUSSIAN OLIVE

(*Elaeagnus angustifolia*)

1937 crop seed

Every seed plump and vital

1/4 lb.	1 lb.	10 lbs.	50 lbs.
30c	75c	\$6.25	\$26.50

Prices include prepaid delivery.

Terms: Cash; or 25 per cent cash,  
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BENJAMIN CHASE  
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### SEEDS FOR SALE

<i>Acer saccharum</i> , sugar maple.....	Per lb.	\$0.45
<i>Esculus glabra</i> , buckeye.....		.25
<i>Corylus americana</i> , hazelnut.....		.45
<i>Rhus glabra</i> , smooth sumac, D.B.....		.50
<i>Rhus typhina</i> , staghorn sumac, D.B.....		.60

**PRAIRIE STATES SEED CO.**

Contract Collections

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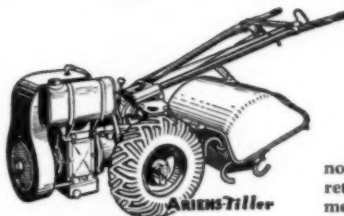
are designed to handle heavy material at a low Labor Cost. We have delivered several machines this Fall — there must be one in your vicinity — Write for information.

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## A COMPLETELY PULVERIZED LEVEL SEED BED IN *One* OPERATION AT *Lower* COST



ARIENS Tiller

IT HARROWS  
AS IT DISCS  
AS IT PLOWS

Once over the ground with an Ariens Tiller, and you have a perfect seed bed—thoroughly aerated with fertilizer and soil shredded and evenly mixed from top to any depth down to 12 inches—no plow sole—no large chunks of ground to retard growth. 3 models to meet all requirements—all built to stand hard and continuous service. It's the perfect tillage combine for nurserymen, who find it indispensable, as one

writes: "Your tiller has performed very well, doing a good job of pulverizing the soil. We are pleased with it, and could not get along without it." You, too, need this tiller.

**ARIENS CO., Box 710, Brillion, Wisconsin**

### ARIENS Tiller

*write* FOR COMPLETE DETAILS

THE AMERICAN TILLAGE COMBINE

## ARONIA

12 to 16 ins. 16 to 20 ins.

**BRILLIANTISSIMA  
ARBUTIFOLIA  
MELANOCARPA**

2-year-old seedlings for lining out

Write for prices

**HINSDALE NURSERIES, INC.**

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## WHICH TWINE?

Jute is good, Sisal is good, Java is good, Cotton is good—but WHEN is any one of these the BEST for your purpose?

Send us a sample of what you are using, and we will recommend THE twine most suitable for YOUR purpose.

**FREE** "Knots the Sailors Use," 8-page booklet with 73 pictures shows how to tie almost any useful knot. Worth having—write today.

**GEO. B. CARPENTER & Co**



Patent No. 2973695

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MADE OF HEAVIER STOCK THAN LAST YEAR

**Help You Grow Better Stock  
Help You Make More Profit  
Bring Your Business Up to Date**

**For Roses, Perennials, Chrysanthemums,  
Shrubs, Vines and Fruit Trees**

CLOVERSET POTS ARE MADE OF ASPHALT IMPREGNATED FIBER STOCK

**They are durable** They are durable enough to permit growing your plants in them the entire growing season.

**They are light** They are light enough (they weigh only 1/20 as much as a clay pot of equal soil capacity) to be easily handled.

**They do not dry out** They are non-porous, which means they will not dry out quickly on hot or windy days, and therefore do not require constant watering as does a clay pot.

**They make the plant look larger and better** They are so finished in appearance that they add to the attractiveness of the plant grown in them.

**Large soil capacity** They are large enough to comfortably accommodate the roots in a natural position of any No. 1 Rose Plant and all the most salable size shrubs and small trees.

**They are cheap in price** They are so cheap that they can be given away with the plant which insures the safe arrival, in first-class condition, of the plant grown in them, to its final destination.

**They make the nursery business an all summer business** They permit the nurseryman to extend his selling season from early spring through the summer and fall, and to plant Roses and other nursery stock grown in them even in the hottest summer weather, without the least sign of wilt of either the foliage or the blooms.

**You can sell your plants in bloom** By growing your stock in our pots you may sell it in full foliage and in Full Bloom, when it will command the best price, and most profits.

**They eliminate cut-rate competition** The use of our Cloverset Pots will enable you to eliminate the competition of the cut-rate drug and department stores, who cannot sell nursery stock in these big pots on account of the excessive weight and the expense of handling.

**Send us a sample order** Give them a trial and you will always use them.

Send us your order with your remittance, \$13.50 for 300 pots, 100 each of 3 sizes, or send for full information about sizes, prices and testimonials from users of our pots.

Carton of samples, by mail for 25c to pay postage

**CLOVERSET FLOWER FARM, 105th Street and Broadway Kansas City, Mo.**

## CHINESE TUBS



Made very sturdy and strong. One size only. Top diameter 12 ins. inside. Depth 10 ins.

Each  
1 to 11.40c  
12 to 49.35c  
50 to 99.33c  
100 or more  
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